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February 9, 2005

Gentlemen,

By way of introducing myself, I have been a sailor in the Massachusetts waters for 25 years, a past resident of Massachusetts and a current resident of Connecticut. Professionally, I have been a Senior Vice President of two Fortune Five Hundred companies and am currently retired.

The proposed wind farm only makes economic sense to the proposers of such enterprise due to the <u>subsidies</u> involved. Wind power is expensive and still questionable as to its reliability. It certainly is a serious modification of the intrinsic beauty of the setting and, in my humble opinion, will economically negatively impact the area.

It would be a crime to allow an enterprise to profit from Government subsidy by building an economically and ecologically unsound wind farm that will destroy the incredible and unique beauty of Nantucket Sound. How can anyone support this devastating proposal except those <u>few</u> involved in the greedy benefits?

Julius Marcus

Julin France

THE CEIVED

Susan Fairbanks Box176 Vineyard Haven, MA 02568

February 12, 2005

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Dear Col. Koning,

I am writing to voice my opinion about the Cape Wind Environment Impact Statement. I feel that the statement is inadequate in many areas including: air and boat navigation safety, impacts to birds and other wildlife, pollution threats from oil on the transformer substation, visual pollution and associated economic and tourism impacts, and the analysis of alternate sights. I recently have viewed two wind farms on Hawaii and both of them were not working and in disrepair. What will happen to these wind machines if the present company goes bankrupt?

Sincerely,

Susan Fairbanks

CHENED

Alone I Thomas Honing U.S. Cirmy Corps of Ingineers 696 Virginia H. d 1742

Re: Nantucket Sound

Dear Sir:

During the 2000'S fear't believe with all not know about preservation of beautiful survivouments that hantucket Sound would be a target for wind mills on the water not only the event mills but a transformer substation

The impact to birds and weldlife es applicating and threats of oil polletion from transformer substation is a very serious matter.

I am against this project and hope you find an alternative site Mrs Genur Catalans 8 BRIDGE STREET, EAST FALMOUTH, MASSACHUSETTS 02536

Tebrusy 12, '05

Colonel Thomas Korning

U.S. dumy Corops dumy Engineers

696 Yuginea Road

Conord, Ma 01742

New Sir,

We wish to protect

Minturket from the distinction of beauty and surjoyment.

Shere must be a fetter way to obtain energy.

Ester Freeman (Mrs. Howard G. Freeman)

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SAVE OUR SOUND Lialliance to protect nantucket sound

Karen Adams U.S. Army Corps of Engineers New England Division 696 Virginia Road Concord, MA 01742-2751

February 16, 2005

Re: Articles on Offshore Wind Energy Development

Dear Karen Adams:

There exist a growing number of proposals to develop our offshore resources for a wide array of purposes, including liquid and natural gas platforms, aquaculture facilities, offshore wind energy plants, offshore wave energy projects, among others. What is missing, however, is a federal system devised to deal with such proposals in a comprehensive and thoughtful manner, while still protecting valuable ocean habitat.

Please find enclosed two articles addressing the proposed development of coastal resources and the need for a moratorium on any such development until Congress can enact a comprehensive system of ocean governance. The first article, entitled "Putting 'Protection' into Marine Protected Areas" and published in the Spring 2004 Vermont Law Review, argues for the immediate implementation of the Marine Protected Areas system, established by Executive Order of President William Jefferson Clinton and reaffirmed by President George W. Bush. "The 'Degreening' of Wind Energy, Alternative Energy v. Ocean Governance," published by the American Bar Association in its Summer 2004 Natural Resources & Environment Journal, identifies the dangers of proceeding with ad hoc, private development of ocean resources.

Both articles ask for nothing more than has been identified as essential for the protection of ocean resources by both the Pew Commission and the United States Ocean Commission. Private developers rushing to exploit the current unregulated environment are doing so to maximize private financial gain with little care for the preservation or stewardship of valuable ocean resources. Both articles use the proposal to develop Nantucket Sound as a wind energy plant to illustrate the potential fate that may befall tremendous expanses of the ocean environment if the current "process" being employed by the United States Army Corps of Engineers is deemed sufficient to guide offshore development. A failure to arrest unfettered development

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February 15, 2005 Page 2

now will place at risk our precious coastal resources and seriously undermine any future attempts to devise a comprehensive offshore regulatory program.

Please consider the perspectives expressed in these articles. Allowing development to proceed in the manner currently being employed by the Army Corps will only repeat the mistakes — many irreparable — of our nation's past development of land-based public resources. I would be happy to discuss any questions these materials may generate or to meet with you to work for a comprehensive framework for ocean governance.

Very truly yours, Susun K. Micherson

Susan Nickerson

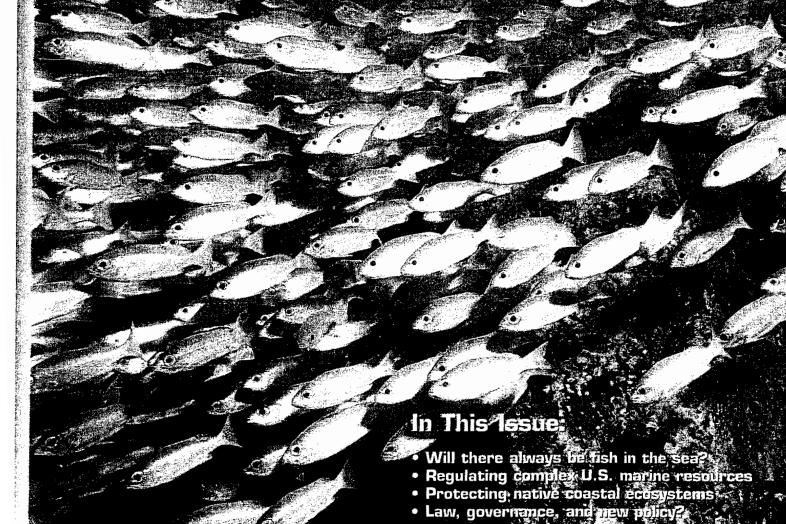
Executive Director, Alliance to Protect Nantucket Sound

NATURAL RESOURCES & ENVIRONMENT

ABA SECTION OF ENVIRONMENT, ENERGY, AND RESOURCES

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Marine Resources and Conservation



Not surprisingly, one of the foremost questions considered by both commissions is the need for a comprehensive ocean management law. The Pew Commission recommends action under five priority objectives, the first two of which call upon the federal government to: (1) "[d]eclare a principled, unified national ocean policy based on protecting ecosystem health and requiring sustainable use of ocean resources," and (2) "[e]ncourage comprehensive and coordinated governance of ocean resources and uses at scales appropriate to the problems to be solved." Pew Report, at x.

Similarly, the U.S. Commission on Ocean Policy determined that the existing regulatory regime cannot "overcome the challenges inherent in addressing complex issues that cross traditional jurisdictional boundaries ... " Preliminary Report of the U.S. Commission on Ocean Policy-Governors' Draft, at xii. It instead recommends creating a "new National Ocean Policy Framework" that would reconfigure and strengthen NOAA, consolidate overlapping ocean and coastal programs, and eventually exact "more fundamental changes to the federal agency structure . . . [to] support a unified approach to resource use and conservation." Id. at xiii. Further, the Commission recommended that Congress establish a lead federal agency for each current and foreseeable use of federal waters and, pending congressional action, "designate interim lead agencies to oversee new offshore activities." Id. at 383.

While the reports of these two commissions should motivate definitive action by Congress to create general oceans conservation and management law, the grounds for taking such action go much deeper. Over the last decade, the principle that the United States must shift away from ad hoc marine management has become engrained in academic studies, scientific literature, and advocacy campaigns.

Academia has long recognized the need for ocean governance principles and laws. The Gerard J. Mangone Center for Marine Policy, for example, at the University of Delaware, has focused on the need for integrated coastal management, which it considers a "critically important tool for securing sustainable development of coastal areas, for dealing with marine and coastal biodiversity, and for addressing the threat of accelerating sea level rise." See www.ocean.udel.edu/cmp/pages/icm_research.html.

Numerous environmental groups have called for similar action. The Ocean Conservancy, for example, has argued that the "lack of a unifying federal agency or authority is in part responsible for our disjointed approach to ocean management. Multiple agencies with conflicting visions cannot effectively protect marine resources." See The Ocean Conservancy, 2002 Report Health of the Oceans, at 8.

The issue of ocean health and governance has motivated unprecedented cooperation among some of the world's largest environmental groups, pressing for an international approach to ocean governance. In May 2003, Conservation International, World Wildlife Fund, Natural Resources Defense Council, The Nature Conservancy, The Ocean Conservancy, Wildlife Conservation Society, and The World Conservation Union collaborated in a conference called

"Defying Oceans End," the purpose of which was to build an agenda for conserving marine biodiversity and determining the cost of achieving that goal. As stated by the executive director of Conservation International's Global Marine Program: "We have a unique and fleeting opportunity to respond to this crisis, learn from centuries of land management experience, and move beyond localized and ad hoc initiatives—however good they may be—to coordinated global action." www.conservation.org/xp/news/press_releases/2003/052103.xml.

The National Research Council of the National Academy of Sciences recommended the establishment of a unified system of conservation areas under national principles in its 2001 report, Marine Protected Areas: Tools for Sustaining Ocean Ecosystems. This report followed Executive Order 13,158 issued by President Clinton in 2000, which sought to accomplish that very objective by calling for a national system of marine-protected areas (MPAs). President Bush reaffirmed the Clinton order in 2002.

At the state level, actions are being pursued to put in place such programs. Responding in part to the threat posed by offshore wind projects, Governor Mitt Romney of Massachusetts has established an Ocean Management Task Force to look at the competing uses and conservation needs of its offshore waters, including the need to coordinate with the federal government. The State of California took a step toward coordinating marine resource management in its waters when it passed the California Ocean Resources Management Act in 1990. CAL. PUB. RES. CODE § 36000.

The problems of ad hoc ocean resource management are now so apparent that the need for a national oceans governance system is no longer in doubt. This new system would necessarily be based upon the well-accepted legal principle that the oceans are part of the "commons," and held in trust for all citizens. As stated in Pollard's Lessee v. Hagan, 44 U.S. (3 How.) 212, 217 (1845), "all the navigable waters of the U.S. are the public property of the nation, and subject to all requisite legislation by Congress." In fact, the public- trust doctrine traditionally arose in the context of navigable waters, although legal scholars have argued for a far wider application. As Joseph Sax has explained in his seminal article on the issue, the "[p]ublic trust problems are found whenever government regulation comes into question, and they occur in a wide range of situations in which diffuse public interests need protection against tightly organized groups with clear and immediate goals." The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention, 68 MICH. L. REV. 471, 556 (1970). This principle finds a need for immediate application in the ocean management context.

Combating Climate Change through Rational Planning

While the pieces seem to be slowly coming into place to advance the cause of unified ocean governance, a new threat has emerged from an unexpected source—so-called

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popular and pristine waters of Nantucket Sound. A private developer, Cape Wind Associates, applied in 2001 to the U.S. Army Corps of Engineers for a permit under Section 10 of the Rivers and Harbors Act (RHA), 33 U.S.C. § 403, to build a project spanning twenty-three square miles of the Sound. The proposed project contemplates the construction of one hundred thirty wind turbines, each reaching more than four hundred feet above the ocean surface. The project would have an average generating capacity of approximately 170 megawatts.

From the developer's perspective, the precise location within the Sound is the key tactical question. If the plant were located within three miles of the coast, it would be subject to Massachusetts's law and a prohibition on power plants. See MASS. GEN. LAWS. ch. 132A, § 15. Beyond that

zone lies the "hole in a regulatory doughnut," an area falling exclusively under federal jurisdiction. The regulatory hole exists because the United States has no legal program in place to govern offshore wind.

Cape Wind Associates argues that only one federal permit requirement, Section 10 of the RHA, which authorizes impediments to navigation, applies to its project. Since its enactment in 1899, Section 10 has been used to allow developers to build structures like docks, piers, and bulkheads in navigable waters. Because these structures are built close to shore, and therefore within the adjacent states' jurisdiction, the underlying assumption has been that the permit applicant has, or will obtain, the property rights for the affected area from the necessary party.

Failure to obtain those rights presumably would lead to a property dispute with the putative landowner.

The developer of the proposed Cape Wind project, therefore, took a bold (and questionable) leap of faith when it decided to proceed with a \$700 million project without any means of obtaining the property rights always understood to be prerequisite to development. The developer group argues that a Section 10 permit is all that is needed for a private entity to use and occupy twenty-three square miles of some of the most valuable, publicly owned ocean territory in the United States. These entrepreneurs claim that the lack of federal legislation means that there is no need to obtain a property right of any kind from the federal government. Under this theory, while oil and gas developers have to undergo the complex OCSLA competitive bidding process to obtain a lease, comply with rigorous environmental standards covering hundreds of pages of the Code of Federal Regulations, submit to programmatic planning, and pay lease rentals and royalties to the federal government, offshore wind developers need only to pass the Corps' Section 10 "public interest" test in 33 C.F.R. § 320.4(a), after undergoing the standard procedural reviews attendant to all federal actions, such as NEPA and ESA review.

The appeal of this approach to offshore wind farm developers is magnified when one considers the federal action agency involved—the U.S. Army Corps of Engineers. Despite openly admitting its lack of expertise on energy projects and its awareness that the applicant cannot obtain property, or use and occupancy rights to Nantucket Sound under existing law, the Corps has nonetheless accepted Cape Wind's application, stating that it must render a decision for any application it receives. To make the matter even more egregious, the Corps has taken the position that it cannot even consider the applicant's inability to obtain property rights in its public interest review. See Alliance to Protect Nantucket

Sound v. Department of the Army, 2003 U.S. Dist. LEXIS 16405 (D. Mass. Sept. 18, 2003) (appeal pending). The Corps takes this position despite the Supreme Court's clear statement to the contrary: "It is untenable [for the Corps] to maintain that the legitimate property interests of the United States fall outside the relevant criteria for a decision [under section 10] that requires the Secretary to determine whether the issuance of a permit would affect the 'public interest." United States v. Alaska, 503 U.S. 569, 590 (1992).

Not surprisingly, other developers have been quick to recognize the advantage of this approach. The Long Island Power Authority has developed plans for a 100-megawatt facility located off the southern coast of

Long Island. Another private company, Winergy LLC, identified more than twenty potential wind factory sites from the tip of Cape Cod to Virginia. Winergy filed Section 10 applications with the Corps for many of these sites. The Corps has placed several of these applications on hold while Winergy develops the necessary information. Another project is under consideration for Block Island Sound in Rhode Island.

As a result, the East Coast, from Massachusetts to Virginia, is now blanketed with sites that have been targeted for possible wind energy project development. No advance planning has occurred. No programmatic environmental review is underway. Offshore wind farm proposals are being considered independently, and no federal agency has stepped forward to say: "Wait, these lands and waters are part of the public trust, and they cannot be taken over for private development merely on the basis of a navigability permit."

The deficiencies in the Section 10 process and the value of Nantucket Sound for multiple other public interest values (environmental quality, regional economic

A time-out is needed on offshore wind permitting, and Section 10 should be used only for permitting hazards to navigation, not for privatizing huge swaths of the

OCS for development.

A systemic approach is often undertaken for other marine resource issues. The National Research Council of the National Academy of Sciences frequently conducts these studies. On issues dealing with the marine environment alone, the National Research Council has undertaken reviews of the OCSLA leasing program (1989), sea turtle/fisheries conflicts (1990), the tuna—dolphin problem (1992), wetlands (1995), and MPAs (2001). In virtually every case, these reviews have led to important policy or legal initiatives that have produced better decision-making, increased environmental protection, and more productive and efficient resource utilization.

Offshore wind presents the classic situation where such a review is needed. Vast areas of the ocean are potentially subject to development. These projects have never been built in the United States. The technology is new and untested. The environmental impacts are uncertain and potentially serious. No formula exists for valuing the use of the OCS for purposes of competitive bidding and royalty payments. Nothing has been done to look at offshore wind from an ocean governance perspective to improve the prospects for its success, reduce the potential for conflict and adverse impacts, and promote the cause of coordinated ocean governance. Finally, by allowing the goals of a particular private developer to drive the decision-making process, alternative sites that very well could be preferable (even if involving smaller projects or lower profits) are not just being overlooked but are instead being rejected as undesirable. The current process is actually setting back the development of wind energy by allowing the narrow goals of the developer, rather than the overwhelming public interest in comprehensive review, to dictate the process.

The final problem arises from the conflict between off-shore wind plant locations and MPAs. One of the few areas of ocean governance that has achieved some degree of coordination is the effort to establish a national system of MPAs. The nationwide MPA system, which is now under development, includes an executive order prohibition against federal agencies taking actions that "harm" MPAs. 65 Fed. Reg. 34,909, 34,911 (May 31, 2000). Offshore wind plants can directly conflict with MPA values, however. For example, the Cape Wind project is clearly at odds with the Massachusetts Cape and Islands Sanctuary, an area that qualifies for protection as a federal MPA. Because there is no current effort to reconcile wind energy proposals with MPA status, the effectiveness of the executive order is being undermined.

Setting Ocean Management Priorities

The collision of two goals—alternative energy versus ocean governance—is forcing a conflict in environmental values. Those choices, however, need not be mutually exclusive. Global warming is not going to be solved quickly. Specific offshore wind projects like Cape Wind, while helpful in enabling Massachusetts to reach alternative energy goals, would have an inconsequential impact on the climate change problem. By contrast, allowing

the offshore wind Section 10 approach to become the mechanism for authorizing offshore development projects would deal a major blow to ocean governance and quite possibly devastate valuable offshore resources that should be protected under a comprehensive ecosystem-based management system.

The April 2004 Preliminary Report of the U.S. Commission on Ocean Policy meets this problem head on. After considering all of the issues and taking public testimony on offshore wind, the Commission determined:

Using the section 10 process as the primary regulatory vehicle for offshore wind energy development is inadequate for a number of reasons. First and foremost, it cannot grant leases or exclude rights to use and occupy space on the OCS. It is not based on a comprehensive and coordinated planning process for determining when, where and how this activity should take place. It also lacks the ability to assess a reasonable resource meant for the public space occupied or a fee or royalty for the energy generated.

Preliminary Report of the U.S. Commission on Ocean Policy—Governors' Draft, at 299. The Commission concluded that the Corps' approach "lacks the management comprehensiveness that is needed to take into account a broad range of issues, including other ocean uses in the proposed area and the consideration of a coherent policy to guide offshore energy development." *Id.*

A time-out is needed on offshore wind permitting, and Section 10 should be used only for its intended purpose, permitting hazards to navigation, not for privatizing huge swaths of the OCS for development. Offshore wind can proceed more constructively by first undertaking a comprehensive review, such as through the NRC/NAS studies program. Such a review could address the big picture and, in the process, make recommendations for how to proceed with legislation and permitting. It also could consider how to make siting decisions that avoid conflicts, protect marine resources, and advance the public trust. Ultimately, such an approach would expedite wind energy by reducing controversy and streamlining decisionmaking.

H.R. 6, the energy bill that died in Congress in 2003. contains provisions (Section 321) that would create a legal regime to authorize not only offshore wind, but also a host of other non-oil and gas energy projects. The environmental community has condemned that section, which was founded upon the minimal record of a single hearing in the House of Representatives. While legislation to address offshore development activities is clearly in order, a more carefully considered approach is needed, one that is based on sound science and steeped in the principles of comprehensive ocean governance. By following this prescription, "green energy" can avoid wearing a "black hat," and the goal of replacing ad hoc marine resource management with common sense ocean governance principles and legal tools can take a major step forward.

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Putting "Protection" into Marine Protected Areas

Donald C. Baur, Wm. Robert Irvin, & Darren Misenko



PUTTING "PROTECTION" INTO MARINE PROTECTED AREAS'

Donald C. Baur W. Robert Irvin Darren R. Misenko''

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^{*} This paper is based in part on a World Wildlife Fund workshop on Marine Protected Areas held in Charleston, South Carolina on February 10 tol 1, 2003, and made possible by a grant from the Turner Foundation.

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INTRODUCTION

Nantucket Sound is one of the most highly valued, pristine marine ecosystems in the United States. Bounded on the north by Cape Cod, and on the south by the islands of Martha's Vineyard and Nantucket, the Sound has a storied past and a promising future. It provided the landscape backdrop for the emergence of colonial settlement of the Massachusetts Bay Colony of the seventeenth century, the whaling industry of the eighteenth and nineteenth centuries, and the fishing industry and tourist/recreation economy of the twentieth century. Nantucket Sound also boasts a rich and diverse biological community, serving as habitat for numerous species of fish, marine mammals, seabirds, sea turtles, and other species of marine wildlife. A magnet for recreational activities as a result of its beaches, abundant opportunities for boating activities, and panoramic vistas, it is one of the premier tourist destinations in the country, and it remains a prime location for commercial and sport fishing.

Taken together, these natural resource values have bestowed the Sound with a unique economic value as well. Through fisheries, tourism, recreation, navigation lanes, ports and harbors, and the towns and villages that have built their communities around the sea, Nantucket Sound has become a prime example of how a healthy and diverse marine ecosystem can act as the engine that fuels the entire regional economy.²

The importance of Nantucket Sound has not gone unrecognized by Massachusetts' lawmakers. In 1977, the Commonwealth of Massachusetts established the Cape and Islands Ocean Sanctuary (CIOS).³ Protecting the coastal areas of Cape Cod, Martha's Vineyard, and Nantucket, the CIOS also included several bodies of water, including Nantucket Sound itself.⁴ Massachusetts' lawmakers specified that these designated areas "shall be protected from any exploitation, development, or activity that would

^{1.} CTR. FOR COASTAL STUDIES, REVIEW OF STATE AND FEDERAL MARINE PROTECTION OF THE ECOLOGICAL RESOURCES OF NANTUCKET SOUND (Jan. 28, 2003), available at http://www.coastalstudies.org/coastalsolution/CCS_Report_1-28-03.pdf.

JONATHAN HAUGHTON ET AL., BEACON HILL INST., BLOWING IN THE WIND: OFFSHORE WIND AND THE CAPE COD ECONOMY 10 (2003) (discussing the importance of tourism to Cape Cod's economy), available at http://www.beaconhill.org/BHIStudies/BHIWindFarmStudy102803.pdf.

^{3.} Massachusetts Ocean Sanctuaries Act, MASS. ANN. LAWS ch. 132A, §§ 12C, 13 (Law. Coop. 2001).

^{4.} Id. § 13(c).

significantly alter or otherwise endanger the ecology or the appearance of the ocean, the seabed, or subsoil thereof."

In 2001, the problems inherent in relying upon state law alone to protect this extraordinary marine ecosystem became apparent. Despite protection under Massachusetts law, Nantucket Sound remained vulnerable to federal agency action because of its geographic configuration. Under the Submerged Lands Act, Massachusetts' jurisdiction is limited to areas within three miles of shore. Because of the size of Nantucket Sound, a zone exists—the classic "hole in the doughnut"—that falls outside the three-mile zone defined by the coastlines of Cape Cod, Nantucket, and Martha's Vineyard. This area in the middle of the Sound, which is surrounded by protected state lands and waters, is the vital core of one of the most highly prized marine ecosystems in the country. Such a location would normally seem to be safe from development activities that threaten resource values. Yet, that has not been the case.

Acting upon the absence of any federal regulatory program governing non-oil and gas development in areas beyond state control, a small group of private investors filed an application with the U.S. Army Corps of Engineers on November 21, 2001 to obtain a permit under section 10 of the Rivers and Harbors Appropriation Act⁷ to build a massive wind energy project in the middle of the Sound. The proposed facility would occupy an astonishing twenty-four square miles out of the 163 square miles of Nantucket Sound. Seeking to avoid Massachusetts state jurisdiction and the protection of the Massachusetts Oceans Sanctuary Act (MOSA), the developers designed their proposal to fit neatly within the "doughnut hole" and, according to their theory, outside the reach of Massachusetts' regulatory control. As a result, despite the sweeping protection provided to Nantucket Sound under MOSA, the Corps of Engineers is proceeding to review a proposal that would allow the wind energy development company

^{5.} Id. § 14. Section 15 of the Massachusetts Ocean Sanctuaries Act (MOSA) backed up this directive with a series of prohibitions and requirements designed to protect the CIOS, and other designated areas. Id. § 15.

^{6.} See Submerged Lands Act, 43 U.S.C. § 1301(a)(2), 1301(b) (2000) (establishing the boundary limit of State jurisdiction over tidewaters and submerged lands). Congress extended the Commonwealth's jurisdiction over fisheries throughout the entire sound. Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1856(a)(2)(B) (2000). The extended jurisdiction should also provide Massachusetts with authority to protect fish and fish habitat, not just to regulate fishing. To date, however, the Commonwealth has shied away from using its jurisdiction for those purposes.

^{7.} Rivers and Harbors Appropriation Act of 1899, 33 U.S.C. § 403 (2000).

See CTR. FOR COASTAL STUDIES, supra note 1, at 2; Environmental Science Services, Inc., Cape Wind Project at http://www.essgroup.com/cape_wind_project.htm.

to locate 130 wind turbines, each towering 415 feet above the ocean surface, in the midst of the otherwise pristine waters of Nantucket Sound. The proposed energy plant would significantly alter or otherwise endanger the appearance of the ocean in violation of MOSA. Its effects on birds, fish, marine mammals and their habitats would also "significantly alter" or "endanger" the "ecology... of the ocean." Furthermore, the cable necessary to carry power to shore would do the same to the "sea bed, or subsoil" of the Sound.

This threat to the Sound, and the Corps of Engineers' willingness to process such a permit, is all the more troubling when the federal government's commitment to protect marine ecosystems like Nantucket Sound is taken into account. On May 26, 2000, President Clinton issued Executive Order 13,158 with the aim of "strengthening and expanding the Nation's system of marine protected areas." The specific purposes of the Order are to:

- (a) strengthen the management, protection and conservation of existing marine protected areas and establish new or expanded MPAs;
- (b) develop a scientifically based, comprehensive national system of MPAs representing diverse U.S. marine ecosystems, and the Nation's natural and cultural resources; and
- (c) avoid causing harm to MPAs through federally conducted, approved, or funded activities. 13

The Order expressly included state sanctuaries and similar areas under its protective provisions by defining the term "marine protected area" to include "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."

The Bush Administration affirmed its commitment to the federal policies in the Clinton Order. On June 4, 2001, Secretary of Commerce Donald L. Evans announced that the Bush Administration had "decided to

^{9.} MASS. ANN. LAWS ch. 132A, § 14.

^{10.} *Id.*

^{11.} *Id*.

^{12.} Exec. Order No. 13,158, 3 C.F.R. 273, 274 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{13.} Id.

^{14.} Id.

retain Executive Order 13158 on marine protected areas."¹⁵ He stated that the Administration was "committed to improving conservation and research in order to preserve our great marine heritage," and that it must be "dutifully maintained."¹⁶

More than two years after Secretary Evans' commitment, much remains to be done to implement the Executive Order. The promise in Executive Order 13,158, to define a national system of MPAs (including state protected areas) and inject the MPA protective mandate into federal decisionmaking, has shown little sign of life. While some preliminary steps have been taken, ¹⁷ the MPA concept remains virtually meaningless in the context of federal action.

This unfulfilled promise of Executive Order 13,158 is exemplified by the proposed private wind energy plant's threat to Nantucket Sound. On July 8, 2002, The Alliance to Protect Nantucket Sound (Alliance), a public interest advocacy group, urged the federal agencies involved in the Corps of Engineers' section 10 review to invoke the Executive Order in opposition to the private energy plant.¹⁸ The request seemed simple and clear-cut: that the Sound be included within the CIOS¹⁹ and that state areas be included in

^{15.} Bowing to Unrelenting Pressure by Environmentalists President Bush Retains Clintons MPA Executive Order, HOTLINES—ONLINE EDITION (Southeastern Fisheries Assoc., Inc., Tallahassee, Fla.), June 2001. at 2 [hereinafter Evans' Statement] (quoting statement of Secretary of Commerce Donald L. Evans regarding Executive Order 13,158) at http://www.southeasternfish.org/Hotlines/June2001hot.pdf; see also Press Release. Nat'l Oceanic & Atmospheric Admin., Marine Protected Areas Federal Advisory Committee (Aug. 20, 2001) (stating that on June 4, 2001, Secretary Evans announced that the Bush Administration would retain Executive Order 13,158), available at http://www.nero.noaa.gov/ro/doc/mpanom.pdf.

^{16.} Evans' Statement, supra note 15.

^{17.} Under Executive Order 13.158, the National Oceanic and Atmospheric Administration (NOAA) established the Marine Protected Areas Center to work with the Department of the Interior (DOI) in carrying out the various tasks required in implementing the Executive Order. Nat'l Oceanic & Atmospheric Admin., National MPA Center, at http://mpa.gov/mpa_center/mpa_center.html (revised Apr. 7, 2004). The Secretary of Commerce has also appointed a twenty-six-member Marine Protected Areas Federal Advisory Committee. The Committee's role is to provide expert advice and recommendations to the Secretaries of Commerce and the Interior on implementation of aspects of section 4 of Executive Order 13,158. Nat'l Oceanic & Atmospheric Admin., MPA Federal Advisory Committee Charter, at http://mpa.gov/fac/about_fac.html (revised Feb. 12, 2004).

^{18.} General information about the Alliance can be found on its website at http://www.saveoursound.org.

^{19.} Even if the boundaries of the CIOS were determined not to extend to the location of the project, the Executive Order would apply because the development of the energy plant would still harm the State Sanctuary by adversely affecting "the ecology [and] the appearance of the ocean" within the CIOS inside the Commonwealth's three-mile boundary as a result of federally approved activities occurring outside. Massachusetts Ocean Sanctuaries Act, MASS. ANN. LAWS ch. 132A, § 14 (Law. Coop. 2001).

the federal MPA definition, so that the mandates of Executive Order 13,158 would govern the Corps of Engineers' review of the proposal.

The answers received by the Alliance in response to this request confirm that, to date, Executive Order 13,158 is essentially an empty shell as far as controlling federal actions is concerned. The Corps of Engineers responded on July 31, 2002, stating simply: "Compliance with Executive Order 13158 on marine protected areas will be evaluated as part of the EIS process." The Department of the Interior (DOI) provided an even more troubling response. In a letter from the Assistant Secretary for Land and Minerals Management, the development arm of the DOI, the absence of any real meaning for state protected areas under the Executive Order became clear. Assistant Secretary Watson wrote: "I am unaware of any formal designation of any inventoried marine area including the Cape and Islands Ocean Sanctuary as a Marine Protected Area under the Executive Order. Without such formal designation, the 'Harm' provisions of the Executive Order do not apply."²²

Thus, according to the DOI, Executive Order 13,158 does not even apply until an act of "formal designation" occurs. According to reports from the MPA Center at NOAA, the development of a formally designated list of MPAs will not be completed for many years.²³ Hence, marine ecosystems like Nantucket Sound that are subject to immediate threats from federal activities and that clearly qualify as MPAs will not receive protection under the Executive Order until the essentially ministerial act of "formal designation" occurs.

Letter from Dominic Izzo, Principal Deputy Assistant Secretary of the Army, to Douglas C.
 Yearley, President, Alliance to Protect Nantucket Sound 1 (July 31, 2002) (on file with Vermont Law Review).

^{21.} This is an unusual assignment of responsibility. The Assistant Secretary for Land and Minerals Management is the policy level official at the DOI responsible for land development, offshore oil and gas development, mineral extraction, and other forms of consumptive uses of natural resources and public lands. A more logical fit for the MPA program would have been under the Assistant Secretary for Fish and Wildlife and Parks, which is the position that has institutionally handled all protected area issues within the DOI.

^{22.} Letter from Rebecca W. Watson, Assistant Secretary for Land and Minerals Management, to Douglas C. Yearley, President, Alliance to Protect Nantucket Sound (Sept. 26, 2002) (on file with Vermont Law Review). Section 5 of the Order states that: "In implementing this section, each Federal agency shall refer to the MPAs identified under subsection 4(d) of this order." Exec. Order No. 13,158, 3 C.F.R. at 276. Contrary to the statement by the Assistant Secretary, this sentence does not say that the harm provision is inapplicable until an MPA is on the list. It simply provides that reference to the list is a required step. *Id.* at 275. Areas that obviously qualify as MPAs, such as CIOS, should still have the protection of the Order even if they are not on the list.

^{23.} See Nat'l Oceanic & Atmospheric Admin., List of MPAs, at http://www.mpa.gov/mpa_list/mpa_list.html (revised Feb. 12, 2004) (explaining that a list of MPAs "will be determined in the future after an administrative process for listing has been established").

The purpose of this Article is to analyze the status of the current MPA program and make recommendations for action, with an emphasis on legal issues. The focus is on domestic, rather than international, MPA conservation. As the case study of Nantucket Sound demonstrates, the existing MPA program in the United States is falling short of its goals to provide protection for MPAs. As a result, a promising initiative announced nearly four years ago is having little regulatory effect, while resource threats continue to mount.

To address this problem, Part I of this Article describes the resource conservation issues that arise in connection with MPA designation and It describes why the MPA concept is critical to marine ecosystem conservation efforts. Part II sets forth an analysis of tools that exist under current federal law to designate and protect MPAs within U.S. waters. It analyzes the manner in which MPAs are covered by laws typically thought of as federal land authorities (national parks, national wildlife refuges, wilderness, etc.), as well as statutes that focus on the marine environment. It also discusses how laws that apply to fish and wildlife conservation efforts have potential application to MPA conservation. Part II concludes by identifying the weaknesses of the existing body of laws for comprehensive MPA protection. discusses Executive Order 13,158 in more detail. It discusses the terms of the Order and describes its current state of implementation. Part IV of the Article sets forth specific recommendations. These recommendations focus on how to improve stakeholder involvement in the MPA process, based upon experiences in the Florida Keys, where such designation has worked well, and in the California Channel Islands, where there has been considerable controversy and dispute. In addition to these process-related issues, the recommendations describe the steps that are necessary to implement Executive Order 13,158 more promptly and effectively and to make better use of existing laws. Finally, Part IV makes recommendations for additional regulatory and legislative actions that will give greater force and meaning to the MPA program.

I. RESOURCE VALUES AND MPAS

The use of MPAs has been recognized as one tool for managing and conserving coastal and ocean resources. The National Research Council's Ocean Studies Board 2001 report entitled *Marine Protected Areas: Tools for Sustaining Ocean Ecosystems* outlines in detail the importance of the

MPA concept for conservation purposes.²⁴ The National Research Council examined the value of using MPAs as a means of conserving marine resources such as fisheries, habitat, and biological diversity.²⁵ The Council conducted this analysis as a response to the belief that traditional management techniques were not supporting sustainable fisheries and the scientific findings that human activities were degrading marine species and their habitats.²⁶ The report concluded that there is growing support for using MPAs to provide greater conservation of habitats, recovery of overexploited species, and maintenance of marine communities.²⁷

More recently, the Pew Oceans Commission recognized the importance of MPAs for conservation purposes in its 2003 report examining, among other ocean-related issues, the use of MPAs as a conservation management tool.²⁸ One of the major recommendations of this report calls for Congress to establish a system of marine reserves in an effort to restore and maintain healthy marine ecosystems.²⁹ Noting the currently limited use of marine reserves (in this case areas where all extractive and disruptive activities are prohibited) the Pew Commission highlighted scientific findings that suggest such areas are essential to conserving marine ecosystems.³⁰ For example, the report mentioned findings that suggest marine reserves are effective in "increasing abundance, diversity, and productivity of marine organisms within reserve boundaries."31 The Preliminary Report of the U.S. Commission on Ocean Policy also supports the use of MPAs. 32 The Report notes that "[m]arine protected areas are important tools for ecosystem-based management, although they will not in and of themselves deliver long-term sustainable use of the oceans."33 The Commission stressed the importance of making MPAs an integral part of "regional ecosystem planning and

COMM. ON THE EVALUATION, DESIGN, & MONITORING OF MARINE RESERVES & PROTECTED AREAS IN THE U.S., NAT'L RESEARCH COUNCIL, MARINE PROTECTED AREAS: TOOLS FOR SUSTAINING OCEAN ECOSYSTEMS 1 (2001).

^{25.} Id. at 3.

^{26.} Id. at 14.

^{27.} Id. at 175.

^{28.} See PEW OCEANS COMM'N, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 26 (2003) ("To govern the oceans for the long-term public good, we need to manage with the entire ecosystem in mind, embracing the whole as well as the parts."), available at http://www.pewoceans.org/oceans/downloads/oceans_report.pdf. The report specifies the creation of MPAs as part of a national marine preservation scheme. Id. at 106.

^{29.} Id. at 34.

^{30.} Id. at 31.

^{31.} *Id*.

^{32.} U.S. COMM'N ON OCEAN POLICY, PRELIMINARY REPORT OF THE U.S. COMMISSION ON OCEAN POLICY GOVERNORS' DRAFT 66-67 (2004), available at http://oceancommission.gov.

^{33.} Id. at 67.

adaptive management" and that they are most effective when "employed in conjunction with other management tools."³⁴

In a recent report to Congress entitled Marine Protected Areas: An Overview, the Congressional Research Service (CRS) pointed out that MPAs are widely considered a viable tool for protecting coastal and ocean resources for at least three general reasons.35 First, the report suggests that the concept of MPAs has gained wide support because such areas represent a means to restore populations of currently depleted stocks of overfished species.³⁶ Next, the report states that MPAs have become desirable as a method for limiting or otherwise prohibiting the development of offshore energy resources, an activity that has become a visible target due to the damage large oil spills have inflicted upon marine ecosystems.³⁷ Finally. the report notes that MPAs may be used to protect against adverse impacts and conflicts from intense and multiple uses of coastal and marine areas.³⁸ The report concludes by stating that if Congress determines that existing laws and programs are insufficient to conserve coastal and ocean resources, new legislation should consider MPAs as a tool for providing greater protection to such resources.³⁹

Although MPAs are generally considered one of the many available tools for addressing the various impacts to coastal and ocean resources, stakeholders have opposed the use of MPAs because they feel that their interests are threatened by the restrictions placed on such areas. The opposition is most apparent from stakeholders whose extractive or consumptive uses may be potentially limited by the use of MPAs. Other stakeholders with development interests, especially those associated with various forms of energy development, have expressed concern with the MPA concept. Stakeholders with commercial and recreational fishing interests represent one of the major groups whose use of marine resources is potentially limited, and therefore oppose MPAs.

II. EXISTING LEGAL MECHANISMS APPLICABLE TO MPAS

There is authority under existing federal law to provide protection to areas of the marine environment. As discussed below, more effective use

³⁴ Id

^{35.} JEFFREY ZINN & EUGENE H. BUCK, CONG. RESEARCH SERV., CRS REPORT FOR CONGRESS: MARINE PROTECTED AREAS: AN OVERVIEW 2 (2003) [hereinafter CRS REPORT].

^{36.} *Id*.

^{37.} Id.

^{38.} Id.

^{39.} Id. at 31.

can be made of these legal authorities for marine ecosystem protection initiatives. Despite these authorities, the existing legal framework is incomplete and inadequate to accomplish full and meaningful protection to a national system of MPAs.

Before discussing how to establish a more complete MPA legal system, it is necessary to discuss the features of existing law. Existing law falls within three categories: laws governing coastal and ocean resources; laws concerning federal land management applicable to the marine environment; and wildlife laws. This Article considers each of these categories separately.

A. A Working Definition of "Marine Protected Area"

The starting point for an analysis of legal authorities is to establish a working definition of the term "marine protected area." One of the principal drawbacks hindering implementation of this conservation concept is the confusion that arises over the meaning of the term "MPA." The principal problem has been equating MPA with the more limited term "marine reserve," which has itself emerged as a term of art.

This Article adopts the same definition that President Clinton established in the Executive Order. This definition is "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." This definition is quite broad. Standing alone, it has little meaning. It does not, for example, prescribe any management measures or regulatory requirements that do not otherwise arise under the laws (federal, state, local, tribal, etc.) used to designate each area.

This is an important distinction. Opponents of MPAs generally assume that attaching such a label alters the existing classification of an area and

^{40.} Exec. Order No. 13,158, 3 C.F.R. 273, 274 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{41.} The CRS reports that the term "MPA" generally includes three criteria: "(1) geographically-defined and bounded places; (2) approaches that manage systems rather than individual resources or species; and (3) approaches that take a long-term perspective on resource management." CRS REPORT, *supra* note 35, at 5. The CRS states that the definition used in the Executive Order likely has been drawn from the definition developed about ten years ago by the IUCN—The World Conservation Union, which is "[a]ny area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment." WORLD COMM'N ON PROTECTED AREAS OF IUCN—THE WORLD CONSERVATION UNION, GUIDELINES FOR MARINE PROTECTED AREAS xviii (Graeme Kelleher ed. 1999) (citing G.A. Res. 17.38, 17th Sess. IUCN (1988)), available at http://www.iucn.org/themes/wcpa/pubs/pdfs/mpa_guidelines.pdf.

the protections that apply. On the contrary, MPA designation does nothing more than give greater meaning to those pre-existing goals and requirements. The MPA concept is a way to strengthen the ability of governmental entities and stakeholders to protect the resource values that are already designated in need of conservation. There may be legitimate concerns about adding protection to ocean areas by designating new MPAs, but the challenge largely confronting the MPA program is protecting what has already been designated.

The confusion over the MPA label is most apparent in the controversy associated with the establishment of "marine reserves." These are areas typically designated pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (FCMA) as "no fishing" zones. Those decisions are driven by the FCMA process, and are based on fishery conservation concerns. While such reserves are a subset of MPAs, the two terms are not synonymous. Indeed, the FCMA allows fishing and many other forms of consumptive use of marine resources in the vast majority of the areas that fit the MPA definition.

The following discussion explains that the protective measures that apply to MPAs will vary, based upon the underlying action taken by the governmental authority that "reserved" the particular location to provide "lasting protection for part or all of the natural and cultural resources therein." The motivation underlying the MPA conservation initiative is not to change the "natural and cultural resources" identified for protection, or to redefine the area "reserved" under applicable law. Instead, the goal is to better advance the effort to provide "lasting protection" to those resources already set aside for that purpose and to designate new areas where appropriate. 45

An additional goal of the MPA conservation effort is to develop an overall approach to managing these protected areas as a continuum. The marine environment does not lend itself to clear and discrete boundaries that divide areas or resources in need of protection. As a result, protection of particular MPAs calls for recognizing the need for a system-based approach. Therefore, one of the goals of the MPA initiative should be to develop a mechanism to ensure that activities occurring outside MPAs do not harm the protected resources inside these areas. Such an effort would

Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1853(b)(2) (2000).

^{43.} See id. (providing options for limiting activity).

^{44.} Exec. Order No. 13.158, 3 C.F.R. at 274.

^{45.} Id.

inherently call for a systematic approach to MPA identification and conservation.

B. Marine Protected Areas Under Existing Coastal and Ocean Legal Authorities

This Subpart describes the principal ocean and coastal laws in the United States that have been used to provide protection to areas of the marine environment through the establishment of MPAs. The authorities covered here do not represent an exhaustive list of those laws governing MPAs but instead focus on the legal mechanisms playing the most significant role. First, we present a summary of legal mechanisms used to designate and manage MPAs under federal statutes, including the National Marine Sanctuaries Act, Coastal Zone Management Act, Clean Water Act, Outer Continental Shelf Lands Act, and Coastal Barrier Resources Act. Next, we describe one state's system for establishing new MPAs—California's Marine Life Protection Act.

1. National Marine Sanctuaries Program

The most prominent federal authority for establishing MPAs is the National Marine Sanctuaries Program (NMSP) established by the National Marine Sanctuaries Act (NMSA). The NMSP represents, in part, a framework for protecting marine areas of special national, and sometimes international, significance. The general purpose of the NMSP is to create a system for identifying and designating special marine areas as national marine sanctuaries, and managing and protecting such areas for the long-term benefit and enjoyment of the public. There are currently thirteen national marine sanctuaries encompassing 18,618 square miles of ocean and coastal waters in the United States.

In creating the NMSA, Congress intended to address the concern that current laws did not adequately "provide a coordinated and comprehensive

^{46.} National Marine Sanctuaries Act, 16 U.S.C. §§ 1431-1445c-1 (2000).

^{47. 15} C.F.R. § 922.2 (2003).

^{48. /}

^{49.} Nat'l Oceanic & Atmospheric Admin., National Marine Sanctuaries—Welcome to the National Program, at http://www.sanctuaries.nos.noaa.gov/natprogram/natprogram.html (revised Aug. 6, 2002). The MPA website maintained by NOAA includes the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve in its list of marine-managed areas under the National Marine Sanctuaries Program, bringing the total number of marine sanctuaries to fourteen. *Id.* At the time of this Article, the ecosystem reserve in the Hawaiian Islands was in the designation process and had not yet been formally designated as a national marine sanctuary. *See id.*

approach to the conservation and management of special areas of the marine environment."⁵⁰ In addressing this gap in marine resource law, Congress found the NMSP should focus on three main objectives. First, the NMSP should "improve the conservation, understanding, management, and wise and sustainable use of marine resources."⁵¹ Next, "public awareness, understanding, and appreciation of the marine environment" should be enhanced.⁵² Finally, the "habitat, and ecological services, of the natural assemblage of living resources" in the designated areas should be maintained for future generations.⁵³ These objectives provide the general mandate for protecting special areas within the NMSP.

The NMSA authorizes the Secretary of Commerce, with presidential approval, to designate as a national marine sanctuary "any discrete area of the marine environment" having "special national significance." Although Congress delegated the authority to designate national marine sanctuaries to the Secretary, an act of Congress may also be used to designate such areas. When making determinations and findings regarding sanctuary designation, the Secretary must consult with interested congressional committees, officials of relevant local, state, and federal entities and agencies, officials of affected Regional Fishery Management Councils, and other interested persons. The Secretary's authority to designate marine sanctuaries is also limited because Congress may reject a designation or any of its terms by adopting a concurrent resolution during a forty-five day review period. Furthermore, if any portion of the proposed sanctuary is within state waters, the governor of the state may declare the designation or any of its parts unacceptable as applied to state waters.

The legislative history of the NMSA suggests that Congress intended to create a system to protect significant marine areas, not by prohibiting all uses, rather by recognizing the "values of the site and manag[ing]

^{50. 16} U.S.C. § 1431(a)(3).

^{51.} Id. § 1431(a)(4)(A).

^{52.} Id. § 1431(a)(4)(B).

^{53.} Id. § 1431(a)(4)(C).

^{54.} Id. § 1433(a). The NMSA specifies that "special national significance" is determined by the proposed areas' "conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or esthetic qualities; ... the communities of living marine resources it harbors; ... or its resource or human-use values." Id. § 1433(a)(2)(A)–(C).

^{55.} For example, the Florida Keys National Marine Sanctuary and Protection Act established the Florida Keys National Marine Sanctuary. Pub. L. No. 101-605, 104 Stat. 3089 (1990).

^{56. 16} U.S.C. § 1433(b)(2)(A)-(E).

^{57.} Id. § 1434(b)(1).

^{58.} Id.

compatible human uses." Congress established the NMSP in legislation stemming from eleven bills in the House of Representatives, which were introduced in primarily in response to public outrage regarding "the degradation of popular marine recreation areas." The resulting legislation allows compatible human uses in designated national marine sanctuaries instead of creating a program that provides protection to special marine areas by prohibiting all uses.

The NMSA prohibits certain activities within any designated national marine sanctuary. First, it is unlawful to "destroy, cause the loss of, or injure any sanctuary resource managed under law or regulations for that sanctuary." Next, it is unlawful to "possess, sell, offer for sale, purchase, import, export, deliver, carry, transport, or ship by any means any sanctuary resource taken in violation of this section." Violators of these provisions are liable for the sum of the response costs and damages resulting from the violation, plus interest.

The Secretary allows certain activities within the sanctuaries by issuing special use permits. The Secretary may issue these permits for specific activities if he determines that the authorization is necessary "to establish conditions of access to and use of any sanctuary resource" or "to promote public use and understanding of a sanctuary resource." Each permit is limited by certain terms established by the NMSA. For example, permitted activities must be "compatible with the purposes for which the sanctuary is designated and with protection of sanctuary resources," and they must be "carried out . . . in a manner that does not destroy, cause the loss of, or injure sanctuary resources." The NMSA also establishes a five-year time limit for all permitted activities unless the Secretary renews the authorization for such activities. Violation of a term or condition of a permit may result in the permit being revoked or suspended with the possible imposition of a civil penalty.

^{59.} John Epting, National Marine Sanctuary Program: Balancing Resource Protection with Multiple Use, 18 Hous, L. Rev. 1037, 1038 (1981).

^{60.} Michael C. Blumm & Joel G. Blumstein, The Marine Sanctuaries Program: A Framework for Critical Areas Management in the Sea, 8 ENVIL. L. REP. 50.016, 50.018 (1978).

^{61. 16} U.S.C. § 1436(1).

^{62.} Id. § 1436(2).

^{63.} Id. § 1443(a)(1)(A)-(B).

^{64.} Id. § 1441(a)(1)-(2).

^{65.} Id. § 1441(c).

^{66.} Id. § 1441(c)(1).

^{67.} Id. § 1441(c)(3).

^{68.} Id. § 1441(c)(2).

^{69.} Id. § 1441(e).

The Secretary has delegated authority to the Administrator of NOAA to implement the NMSA.⁷⁰ The Administrator in turn has promulgated regulations regarding the general implementation of the NMSP, as well as site-specific regulations dealing with each individual sanctuary. The first regulation that applies generally to all national marine sanctuaries requires the Secretary to implement a sanctuary management plan and other regulations to carry out activities such as surveillance, enforcement, research, monitoring, evaluation, and education.⁷¹ The regulations allow activities such as fishing, boating, diving, research, and education within the sanctuaries unless prohibited or regulated by the sanctuary-specific regulations or other restrictions imposed by other valid authorities.⁷² Another notable regulation that applies generally to the sanctuary program provides for leases, permits, licenses, or rights of use or access to be upheld if they existed on the date of the sanctuary's designation. 73 The regulations also allow prohibited activities, so long as they comply with a national marine sanctuary permit, or other federal, state, or local leases, permits, licenses, or other authorizations issued after the designation date of the sanctuary.74

Under this authority, NOAA promulgated sanctuary-specific regulations to protect resource values. Some of these regulations are commonly applied in many of the sanctuaries, while others are tailored to protect the particular resources found in individual sanctuaries. For example, many of the sanctuary-specific regulations prohibit activities that alter the seabed, or are related to developing oil, gas, or minerals. Other common regulations prohibit the removal or injury of historical resources, or the taking of any marine mammal, sea turtle, or seabird. Less common regulations prohibit activities such as operating personal watercraft, or

^{70.} Id. § 1439.

^{71. 15} C.F.R. § 922.30(a) (2003).

^{72.} Id. § 922.42.

^{73.} Id. § 922.47.

^{74.} Id. §§ 922.48-922.49.

^{75.} Id. §§ 922.91(a)(1), 922.102(a)(5), 922.122(a)(4), 922.132(a)(4), 922.142(a)(3), 922.163(a)(3), 922.193(a)(2) (subsections preventing alteration of the seabed).

^{76.} Id. §§ 922.71(a)(1), 922.82(a)(1), 922.111(a)(3), 922.122(a)(1), 922.132(a)(1) (subsections preventing exploration of oil, gas, and minerals).

^{77.} Id. §§ 922.132(a)(3), 922.142(a)(4), 922.152(a)(3), 922.163(a)(9) (subsections preventing removal and injury of a sanctuary historical resource).

^{78.} Id. §§ 922.122(a)(6), 922.132(a)(5), 922.142(a)(5), 922.152(a)(5), 922.163(a)(10) (subsections preventing the taking of mammals, sea turtles, and seabirds).

^{79.} Id. §§ 922.82(a)(7), 922.132(a)(7) (prohibiting the operation of personal watercraft).

vessels carrying cargo.⁸⁰ Some sanctuary-specific regulations prohibit activities such as attracting white sharks,⁸¹ diving of any type,⁸² coming within one hundred yards of a humpback whale,⁸³ or removing, injuring, or possessing coral or live rock.⁸⁴

The NMSA also establishes Advisory Councils to assist the Secretary in designating and managing national marine sanctuaries. The Secretary may select members for the Advisory Councils from a variety of stakeholders. Members may include natural resource managers from federal or state agencies, or officials from relevant Regional Fishery Management Councils. Furthermore, the Secretary may choose from "representatives of local user groups, conservation and other public interest organizations, scientific organizations, educational organizations, or others interested in the protection and multiple use management of sanctuary resources." This provision allows for substantial involvement by stakeholders in designating and managing national marine sanctuaries.

2. Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (CZMA)⁸⁸ provides additional mechanisms related to the protection of coastal and marine resources. First, the CZMA establishes a coastal zone management program to provide incentives for eligible states and territories to implement coastal management plans that protect coastal resources. As part of this incentive system, the Act makes federal grants available for those states and territories that implement coastal management programs adhering to specific guidelines set forth by the Act.⁸⁹

In addition to the federal grants providing support for states to develop and implement coastal management programs, section 309 of the CZMA also makes federal grants available for state programs aimed at developing greater protections for coastal and ocean resources.⁹⁰ These grants, known as coastal zone enhancement grants, are available for state programs

^{80.} Id. §§ 922.71(a)(4). 922.82(a)(4) (prohibiting operation of cargo vessels).

^{81.} Id. § 922.132(a)(10).

^{82.} Id. § 922.61(c).

^{83.} Id. § 922.184(a)(1).

^{84.} Id. § 922.163(a)(2).

^{85.} National Marine Sanctuaries Act. 16 U.S.C. § 1445a(a) (2000).

^{86.} Id. § 1445a(b)(1)-(2).

^{87.} Id. § 1445a(b)(3).

^{88.} Coastal Zone Management Act of 1972, 16 U.S.C. §§ 1451-1465 (2000).

^{89.} Id. § 1455(b).

^{90.} Id. § 1456b(a)(5).

designed to provide greater protection to both land-based and marine resources. For instance, with regard to land-based resources, section 309 allocates federal assistance to state programs that seek to address the impacts of coastal growth and development. This section also provides federal grants for state programs that plan "for the use of ocean resources."

The federal consistency provision under section 307 of the CZMA is additional incentive for states to participate in the coastal management program and protect coastal and marine areas within their borders. Under this provision, federal actions within or affecting a state's coastal zone must be "consistent to the maximum extent practicable" with the federally approved state coastal management program. This requirement provides an incentive by assuring the states that federal activities impacting their coastal resources will not be allowed unless they are consistent with the state management plan.

The CZMA contains a second mechanism to research and protect certain coastal estuarine areas. It accomplishes this by establishing a system of reserves. This system, known as the National Estuarine Research Reserve System (NERRS), encourages the protection and study of estuarine areas through a network of individual national estuarine reserves. Upon designation of a national estuarine reserve, the federal government assists local communities and regional groups in managing the reserve and conducting research. The federal government also assists local communities in addressing "issues such as non-point source pollution, habitat restoration, and invasive species." There are currently twenty-six individual national estuarine reserves covering more than one million acres of estuarine habitat.

Section 315 of the CZMA gives the Secretary of Commerce (Secretary) the authority to designate national estuarine reserves that coastal state governors nominate for designation. 99 One requirement of particular

^{91.} Id.

^{92.} Id.

^{93.} Id. § 1456b(a)(7).

^{94.} Id. § 1456(c)(1)(A).

^{95.} Nat'l Oceanic & Atmospheric Admin., National Estuarine Research Reserve System: An Overview of the Reserve System, at http://nerrs.noaa.gov/Background_Overview.html (last revised Feb. 18, 2004).

^{96.} Id.

^{97.} Id.

^{98.} Nat'l Oceanic & Atmospheric Admin., National Estuarine Research Reserves: Strategic Plan 2003-2004, at http://nerrs.noaa.gov/Background_StrategicPlan.html (last revised Feb.18, 2004).

^{99. 16} U.S.C. § 1461(b)(1).

relevance is that the law of the nominating coastal state must provide "long-term protection for reserve resources to ensure a stable environment for research." 100

Upon designation of a national estuarine reserve, the financial assistance provision of section 315 authorizes the Secretary to provide federal grants to the nominating coastal state for acquiring "lands and waters...as are necessary to ensure the appropriate long-term management" of the national estuarine reserve. The Act further requires the Secretary to provide financial assistance for operating or managing the reserve, constructing facilities, or conducting educational, research, or monitoring activities. Although section 315 of the CZMA fails to include any specific protective provisions, the availability of federal grants under NERRS is an incentive for coastal states to enact laws that protect estuarine areas

3. Clean Water Act

The Federal Water Pollution Control Act of 1972, commonly known as the Clean Water Act (CWA), 103 also provides legal authority for establishing MPAs. One notable mechanism is the National Estuary Program (NEP) established by section 320 of the CWA. 104 Section 320 provides for states to designate estuarine areas within their borders and calls for the development of a management plan for restoration and protection of such areas. 105 This section directs the Environmental Protection Agency (EPA) to work collectively with state and local entities to develop the management plans. 106 This section also authorizes the EPA to provide financial assistance for developing these management plans. 107 The protective measures provided under section 320 include assessing impacts on estuarine areas and developing plans to address pollution, maintain water quality, and protect designated uses. 108 A collective group of federal, state, and local government officials along with members of affected industries,

^{100.} Id. § 1461(b)(2)(B).

^{101.} Id. § 1461(e)(1)(A)(i).

^{102.} Id. § 1461(e)(1)(A).

^{103.} Federal Water Pollution Control (Clean Water) Act of 1972, 33 U.S.C. §§ 1251-1387 (2000).

^{104.} Id. § 1330. In 1987, Congress amended the CWA and established the NEP to provide for greater protection of estuarine areas.

^{105.} Id. § 1330(a)(1).

^{106.} Id. § 1330(c).

^{107.} Id. § 1330(g)(1)-(2).

^{108.} Id. § 1330(b)(1), 1330(b)(4).

educational institutions, and members of the public carry out these protective measures.¹⁰⁹ There are currently twenty-eight estuarine areas designated under the NEP.¹¹⁰

Section 403, the Ocean Discharge Criteria title, protects coastal and ocean areas by requiring a permit for certain discharges into all ocean waters. This section requires the EPA to promulgate regulations for implementing the permit process and criteria for ocean discharges. The EPA is currently undergoing a proposed rulemaking process to revise their regulations in response to the mandate of Executive Order 13,158. This Order requires the EPA to ensure the protection of MPAs through methods including the "identification of areas that warrant additional pollution protections."

In response to this mandate, the EPA has proposed to define MPAs, known as "Special Ocean Sites," as "specific areas within ocean waters that have significant outstanding ecological, environmental, recreational, scientific, or esthetic value." The EPA proposes to designate four Special Ocean Sites and also establish a process for designating additional sites. In identifying and establishing areas for designation, the proposed regulations allow petitioning parties to identify sites. However, the EPA will likely still have to follow a rulemaking process before any proposed sites can be considered for designation. The proposed process for managing Special Ocean Sites prohibits new discharges within the area. In addition, existing permits will be revoked if they increase pollutant loadings beyond a certain limit.

^{109.} Id. § 1330(c)(1)-(5).

^{110.} U.S. Envtl. Prot. Agency. National Estuary Program: Which Estuaries are in the NEP?, at http://www.epa.gov/owow/estuaries/find.htm (last updated Mar. 16, 2004).

^{111. 33} U.S.C. § 1343(a).

^{112.} Id. § 1343(c)(1).

^{113.} Exec. Order No. 13,158, 3 C.F.R. 274, 276 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{114.} Robin Kundis Craig & Sarah Miller, Ocean Discharge Criteria and Marine Protected Areas: Ocean Water Quality Protection Under the Clean Water Act. 29 B.C. ENVIL. AFF. L. REV. 1, 28 (2001).

^{115.} Press Release, U.S. Envtl. Prot. Agency, EPA Proposes Special Ocean Sites (Jan. 19, 2001), available at http://yosemite.epa.gov/opa/admpress.nsf/0/e5e2e383ff959439852569d9006db3fb? OpenDocument.

^{116.} Id.

^{117.} Id.

^{118.} Id.

4. Other Federal Coastal and Ocean Legal Authorities

In highlighting the primary laws that provide protection to coastal and ocean areas, a few other federal laws and administrative actions warrant brief discussion. The Outer Continental Shelf Lands Act of 1953 (OCSLA)¹¹⁹ and the Coastal Barrier Resources Act of 1982 (CBRA)¹²⁰ are two notable federal statutes providing some degree of protection to coastal and ocean areas.

In 1953, Congress passed the OCSLA to establish a system for managing the development of oil and gas resources in the outer continental shelf (OCS). In general, the OCSLA established federal jurisdiction of submerged lands of the OCS seaward of state territorial waters. Furthermore, the OCSLA provided the Secretary of the Interior with the authority to grant leases for the development of energy resources within the OCS. 123

The OCSLA includes specific provisions related to the protection of ocean areas. For example, the Secretary of the Interior must balance the economic benefits and environmental impacts of developing various regions of the OCS. The Secretary must also consider "environmental sensitivity and marine productivity" of areas when determining whether such areas will be open for development. Under this provision, the Secretary may set aside particular areas or regions of the OCS where leasing is not allowed, thereby protecting such areas from development.

Another provision of the OCSLA gives the Secretary the authority to ensure that the development of the OCS is conducted in an environmentally-sound manner by allowing the cancellation or suspension of leases where activities threaten the marine, coastal, or human environment or otherwise damage fish and aquatic life. In effect, these OCSLA powers can create *de facto* MPAs protected from oil and gas activities.

^{119.} Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331-1345 (2000).

^{120.} Coastal Barrier Resources Act, 16 U.S.C. §§ 3501-3510 (2000).

Outer Continental Shelf Lands Act, Pub. L. No. 95-372. 67 Stat. 462 (codified at 43 U.S.C. § 1332 (2000)).

^{122.} See 43 U.S.C. § 1333(a)(1)–(2)(A) (extending the United States Constitution and the laws of the adjacent states to the subsoil and seabed of the Outer Continental Shelf).

^{123.} Id. § 1334(a).

^{124.} Id. § 1344(a)(3).

^{125.} Id. § 1344(a)(2)(G); see also id. § 1344(f)(1) (requiring regulations to establish procedures for "receipt and consideration of nominations for any area to be offered for lease or to be excluded from leasing"); § 1345a (allowing state and local governments to recommend areas suitable for leasing).

^{126.} Id. § 1334(a)(1)(B), 1334(a)(2)(A)(i).

Congress enacted the CBRA in 1982 to protect undeveloped coastal barriers and related areas. Congress sought to protect coastal barriers because they provide important habitats for marine and coastal wildlife, as well as buffers against storms. The main objectives of the CBRA are to minimize the loss of human life, decrease wasteful expenditures of federal funds, and prevent damage to fish, wildlife, and other natural resources. Storms.

In order to protect undeveloped coastal barriers, the CBRA eliminates federal financial assistance for developing coastal barrier areas that are a part of the Coastal Barrier Resources System as designated by the Act. ¹³¹ Under this provision, no new federal financial assistance may be used to support actions within designated areas, including such actions as the construction or purchase of any structure, road, airport, boat landing, bridge, or the non-emergency stabilization of shoreline areas. ¹³² The CBRA contains certain limited exceptions where federal funding may be available for certain projects. For example, one provision funds facilities for the development of energy resources, or certain road and navigational channel maintenance. ¹³³ Projects involving the study, management, and protection of fish and wildlife resources and habitats may also receive funding along with projects involving nonstructural restoration for purposes of shoreline stabilization. ¹³⁴

5. State Marine Protected Area Law

Many states have established legal mechanisms governing MPAs within their waters similar to the Massachusetts Ocean Sanctuary Act (MOSA) described in the Introduction to this Article. All such laws are, however, limited by the reach of state jurisdiction over coastal and ocean waters. One example of a law that provides a legal mechanism for

^{127.} Coastal Barrier Resources Act § 2, Pub. L. No. 97-348, 96 Stat. 1653 (codified at 16 U.S.C. 3501 (2000)).

^{128. 16} U.S.C. § 3501(a)(1).

^{129.} Id. § 3501(a)(3).

^{130.} Id. § 3501(b).

^{131.} Id. §§ 3503(a), 3504(a).

^{132.} Id. § 3504(a)(1)-(3).

^{133.} Id. § 3505(a)(1)-(3).

^{134.} Id. § 3505(a)(6)(A), (G).

^{135.} See supra note 3 and accompanying text.

^{136.} See Submerged Lands Act, 43 U.S.C. §§ 1301-1356a (2000) (establishing the boundary limit of state jurisdiction over tidewaters and submerged lands). According to the Act, state jurisdiction

managing a state's system of MPAs is California's Marine Life Protection Act (MLPA).¹³⁷ The MLPA requires the California Department of Fish and Game (CDFG) to take certain steps to more effectively manage the existing MPAs in California waters. In developing a more effective management scheme for MPAs, CDFG must consider no-take reserves or "marine life reserves" as an essential component of a more effective MPA system.¹³⁸

The MLPA was introduced to more effectively protect California's marine life, habitat, and ecosystems. The California Legislature concluded that the best way to protect these resources was to modify the system currently used to manage the state's MPAs. The Legislature based this decision in part on the finding that the state's existing MPAs were not established "according to a coherent plan and sound scientific guidelines" and most of the "MPAs lack[ed] clearly defined purposes, effective management measures and enforcement. The Legislature also recognized the importance of fully protected zones known as marine life reserves. The Legislature concluded that existing MPAs should be modified so that they are "designed and managed according to clear, conservation-based goals and guidelines that take full advantage of the multiple benefits that can be derived from the establishment of marine life reserves."

The definition of MPAs provided in the MLPA recognizes a broad array of areas subject to varying degrees of protection. Included within this definition are areas that allow commercial and recreational activities, such as fishing for certain species and kelp harvesting. The most restrictive subset of MPAs, recognized by the MLPA, is the marine life reserve, which prohibits "all extractive activities, including the taking of marine species, and . . . other activities that upset the natural ecological functions of the area."

The MLPA further provides such areas shall "to the extent feasible . . . be open to the public for managed enjoyment and study" while

is generally limited to three geographic miles from the coastline. *Id.* § 1301(a)(2). In the Gulf of Mexico, the Florida and Texas boundaries extend out three leagues from the coastline. *Id.* § 1301(b).

^{137.} CAL. FISH & GAME CODE §§ 2850–2863 (West Supp. 2004). Implementation of the MLPA has been placed on hold indefinitely by the Schwarzenegger administration due to a lack of state funds. Ocean Conservancy, Ocean Issues Around the Country, BLUEPLANET Q., Spring 2004, at 11.

^{138.} Id. § 2853(c)(1).

^{139.} Id. § 2851(h).

^{140.} Id. § 2851(a).

^{141.} Id. § 2851(f).

^{142.} Id. § 2851(h).

^{143.} Id. § 2852(c).

^{144.} Id. § 2852(d).

also being "maintained to the extent practicable in an undisturbed and unpolluted state." ¹⁴⁵

In order to increase the coherence and effectiveness of California's MPA system, the MLPA requires the California Fish and Game Commission to take two measures aimed at improving the design and management of the MPA system. First, the Commission must adopt a "Marine Life Protection Program," which establishes a framework for managing California's MPA system. The program must comply with an established set of goals that focus on "ecosystem protection, representing habitats, helping sustain populations, improving the existing array of MPAs, and ensuring that the new system functions, to the extent possible, as a network." The program must also include certain elements such as:

(1) an improved marine life reserve component; (2) specific objectives, and management and enforcement measures; and (3) provisions for monitoring, research, evaluation, and educating the public. Finally, the program must include the involvement of interested parties in a process for "the establishment, modification, or abolishment of existing MPAs or new MPAs." The above goals and elements are the framework for modifying California's MPA system to increase its coherence and effectiveness.

Second, the MLPA requires the Commission to adopt a "master plan" to guide the establishment and implementation of the Marine Life Protection Program. The master plan provides guidance for "decisions regarding the siting of new MPAs and major modifications of existing MPAs." The CDFG is charged with developing the master plan, which must be based on the "best readily available science" and in accordance with the advice and assistance of a "master plan team." The master plan team must include members with expertise in marine life protection, including knowledge about the use of protected areas as a marine ecosystem management tool. Is In carrying out the master plan, the CDFG must

^{145.} Id.

^{146.} Id. § 2853.

^{147.} Cal. Dep't of Fish & Game, Marine Life Protection Act: Working Group Process, at http://www.dfg.ca.gov/mrd/mlpa/working group.html (last visited Apr. 10, 2004).

^{148.} CAL. FISH & GAME CODE § 2853(c)(1)-(4).

^{149.} Id. § 2853(c)(5).

^{150.} Id. § 2855(a).

^{151.} *Id*.

^{152.} Id. § 2855(a), (b)(1).

^{153.} Id. § 2855(b)(2).

consider relevant information from local communities, along with comments and advice from other interested parties.¹⁵⁴

Consistent with the requirements described above, CDFG has begun the process of developing a master plan. CDFG initiated the process by introducing "Initial Draft Concepts" as a starting point to gather public input from a series of public workshops. 155 In order to address comments gathered from these public workshops, CDFG held informal small group meetings with various stakeholder groups.¹⁵⁶ Currently, the CDFG is holding a series of "facilitated regional workshops" that include topics such as recreational and commercial fishing, diving, environmental and ecotourism interests, harbor districts, scientists, research interests, education organizations, and military organizations. 157 The primary issue addressed in these workshops is the overall scope of the MPA network and, in particular, the options for locating of MPAs within this network. 158 In response to the workshop discussions, CDFG will develop a range of alternatives that are subject to a socioeconomic and scientific review by the master plan team. 159 CDFG will hold a final set of public discussions regarding final changes to the preferred and alternative options for the MPA network. 160 "Based on these discussions [CDFG] will draft the master plan, including a preferred and alternative MPA networks."161

6. Protective Effect of Existing Coastal and Ocean Legal Authorities Relevant to MPAs

The primary coastal and ocean legal authorities described above include a number of features focused specifically on conserving and managing coastal and marine areas. The purposes of these authorities are to designate certain coastal and marine areas and to protect the marine resources within the boundaries of the designated areas. Despite these purposes, these authorities do not represent a comprehensive or complete approach to protecting such resources. The shortcomings of each statutory scheme are detailed below.

^{154.} Id. § 2855(c).

^{155.} Cal. Dep't of Fish & Game, Marine Life Protection Act: Working Group Process, at http://www.dfg.ca.gov/mrd/mlpa/working_group.html (last visited Apr. 10, 2004).

^{156.} Id.

^{157.} Id.

^{158.} Id.

^{159.} Id.

^{160.} Id.

^{161.} Id.

First, the NMSP plays the most prominent role in establishing and protecting particular coastal and marine areas. The first important feature of the NMSP is its system for identifying and designating special coastal and marine areas that the NMSA should protect. The Secretary of Commerce may identify for protection "any discrete area of the marine environment" having "special national significance." NOAA regulations give guidance on which sites officials should consider for protection in a Site Evaluation List (SEL). This system for identifying sites is not used to its full potential because the SEL is currently inactive. This means that no further inclusions will be made until the Secretary reactivates the list. So long as the list remains deactivated, the Secretary will not consider areas currently excluded, despite the need for resource protection in those areas. Thus, the NMSA is of little current value for expanding the MPA system.

Additional notable features of the NMSP are the protective measures specifically aimed at managing and conserving marine and coastal resources. Following designation, both the NMSA and NOAA regulations contain provisions to protect marine and coastal resources within the boundaries of the designated area. For example, NOAA's sanctuary-wide regulations prohibit destructive practices by managing and enforcing certain activities within designated areas. Such measures do not provide complete protection to marine resources, however, since permitted human uses continue to impact these resources. In addition, because its provisions apply only within the boundaries of existing areas, the NMSA does not coordinate protection among other classifications of MPAs.

Since designation of special areas under the NMSA alone does not provide a great degree of resource protection, NOAA's sanctuary-specific regulations become crucial to conserving marine and coastal resources. Sanctuary-specific regulations that prohibit extractive activities provide a good deal of protection against harmful impacts. Sanctuary-specific regulations that prohibit non-extractive activities, such as operating personal watercraft, also provide a good deal of protection to particular resources in individual sanctuaries. However, regulations prohibiting non-extractive activities are not widely adopted throughout the NMSP.

^{162.} See supra Part II.B.1.

^{163.} National Marine Sanctuaries Act, 16 U.S.C. § 1433(a)(1)-(2) (2000).

^{164. 15} C.F.R. § 922.10(a) (2003). The SEL contains a list of marine sites that warrant further evaluation for possible designation. *Id.*

^{165.} See supra Part II.B.1.

^{166.} See supra Part II.B.1.

Second, the CZMA may provide protection to coastal zones, but is limited by state law. Congress created the coastal zone management program and estuarine reserve system as part of the CZMA. These programs include several features important to protecting marine and coastal resources. First, the coastal zone management program provides an effective system of incentives for states to develop greater protections for coastal areas within their borders. As pointed out by a recent CRS report to Congress, this system of incentives appears to be effective because only one out of the thirty-five eligible states and territories is currently not participating. In the coastal zone management program provides an effective because only one out of the thirty-five eligible states and territories is currently not participating.

Similar to the CZMA provision allowing for federal assistance to states with approved coastal management programs, the NERRS program provides an incentive for states to take measures to protect coastal and estuarine areas. These incentive programs are an important feature of protecting marine and coastal resources because they represent a way for the federal government to encourage the use of resource protection measures within areas under state and local government control.

Although the Secretary of Commerce has designated estuarine areas under the NERRS, thereby providing some degree of protection, the CZMA fails to include any specific protective provisions. Therefore it becomes important to determine whether these incentive programs are sufficient to protect estuarine, coastal, and marine resources, or whether more explicit controls are necessary at either the federal, state, or local levels.

The consistency requirements of the CZMA are also important to the goal of extending MPA protection. Where state law designates certain areas as protected, the federal consistency requirement ensures some level of conformity between federal activities and the requirements and goals of state programs.¹⁷⁰ This mechanism is, however, only as effective as the underlying state laws. Additionally, the consistency review does not provide for uniformity among MPAs located within different jurisdictions.

Third, The National Estuary Program under section 320 of the CWA is a tool for greater protection of estuarine areas, but is limited to qualified areas. One notable feature of this program is that it allows state and local officials, along with other stakeholders, to play a part in designing the plan for protecting and restoring particular estuarine areas. The EPA has noted

^{167.} See supra Part II.B.2.

^{168.} CRS REPORT, supra note 35, at 22.

^{169.} See supra Part II.B.2.

^{170.} See supra Part II.B.2.

^{171.} See supra Part II.B.3.

that this system has led to innovative approaches in addressing local environmental problems, while taking into consideration the needs of local communities and constituencies.¹⁷²

Another important feature of the CWA is a provision under section 403 that prohibits unlawful discharges of pollutants in designated marine areas. Section 403 seeks to protect ocean waters from pollution by providing the EPA with authority to require a permit for certain discharges into all ocean waters. The mandate of Executive Order 13,158 requires the EPA to identify areas that warrant additional pollution protection. As evidenced by the EPA's proposed regulations, the Executive Order and section 403 provide the EPA with a basis for authority to develop additional pollution protection for certain designated marine areas. This tool's effectiveness in protecting marine resources cannot be gauged because the EPA has not yet issued final regulations on this matter.

As useful as these programs are, they are limited in scope. They apply only to qualified estuaries and, for prohibiting or regulating discharges, are limited to designated marine areas. Of course, the scope of the CWA also limits this authority. The Act does not provide protection from the full range of resource threats or serve as the basis for coordinating protection among the disparate areas of the desired national system of MPAs.

Fourth, the California MLPA represents one approach a state can follow to provide greater protections to its coastal and marine resources. One important feature of the MLPA is its focus on providing a coherent plan for managing the system of MPAs already in place. This feature is important because it calls on the state to more clearly define the purpose and goals of existing MPAs. In so doing, states are more apt to determine when and where greater resource protections are required.

The MLPA mandate to utilize a range of MPAs with varying degrees of protection represents another important feature aimed at providing greater protection to marine and coastal resources. In addition, the MLPA authorizes and encourages greater use of no-take zones known as "marine life reserves." This gives the state a method to provide greater protection to marine and coastal resources by prohibiting activities that are destructive to the ecosystem, including extractive activities such as the taking of marine species. Since the MLPA has not yet been fully implemented, it remains to

U.S. Envtl. Prot. Agency, National Estuary Program: National Estuary Program Success Stories, at http://www.epa.gov/owow/estuaries/success.htm (last updated Mar. 16, 2004).

^{173.} See supra Part II.B.3.

^{174.} See infra Part III.A.

^{175.} CAL. FISH & GAME CODE § 2851(f) (West Supp. 2004).

be seen whether these features provide an effective framework for other states to follow in providing greater protection to their coastal and marine resources. If other states adopt this approach, they would establish a foundation for the state component of a national system of MPAs.

In the overall scheme of MPA conservation, the federal and state authorities described above provide a significant degree of protection for coastal and marine resources. However, there is room for improving these authorities to provide greater resource protection. Significant gaps in protection still exist and none of these laws provide an adequate basis for coordinating all MPAs into a national system for protecting the affected resources from threats arising outside the boundaries of designated areas.

C. Marine Protected Areas Under Existing Federal Land Authorities

The most well established set of principles and requirements for setting aside and protecting specific areas for conservation purposes is found in the land management context. The laws that govern the National Park, National Wildlife Refuge, and Wilderness Systems not only serve as examples of how to protect specific areas, they are also themselves a body of laws that cover important locations in the marine environment. As a result, these land-based legal authorities play an important, although limited, role in the MPA program.

1. The National Park System

Beginning with the establishment of Yellowstone National Park in 1872, 176 the National Park System (Park System) has evolved to represent the natural, scenic, cultural, and historic heritage of the United States. Areas included in the Park System are recognized for their attributes of national and international significance. The Park System protects the ecological features, wildlife habitat, and scientific and scenic values of certain natural areas. The system also provides protection to areas that commemorate significant persons, events, and places in U.S. history. All of the areas in the Park System serve public recreational and educational functions.

To fulfill this mission, the Park System has grown into a large, complex assemblage of protected areas. Consisting of 384 areas¹⁷⁷ covering

^{176.} Act of Mar. 1, 1872, ch. 24, 17 Stat. 32.

^{177.} Nat'l Park Serv.. The National Park System: Caring for the American Legacy, at http://www.nps.gov/legacy/mission.html (last updated Feb. 2, 2001).

nearly 83.6 million acres, ¹⁷⁸ the Park System includes 55 national parks, 76 national monuments, 111 national historic sites/parks, and 20 national recreational areas. ¹⁷⁹ It also includes numerous other areas of diverse character, such as national military parks and battlefields, parkways, scenic trails, lakeshores, rivers, memorials, and others. ¹⁸⁰ As the size and diversity of the Park System suggests, the laws governing the protection, administration, and use of these areas are complicated, expansive, and constantly evolving.

Thirty-nine units within the Park System include coastal or marine waters, or are located adjacent to such areas. Some of these units include national parks, monuments, and historic parks that are located within or adjacent to coral reef ecosystems. 181 These areas include the Virgin Islands National Park, the National Park of American Samoa, and the Biscayne and Dry Tortugas National Parks. 182 Other examples include the Kalaupapa and Kaloko-Honokohau National Historic Parks in Hawaii and the Buck Island Reef National Monument in Christiansted, Virgin Islands. 183 Other units under the National Park System that are located within significant marine and Great Lakes ecosystems include the Glacier Bay, Kenai Fjords, Acadia, Channel Islands, and Isle Royale National Parks. 184 There are also a number of national seashores and lakeshores adjacent to marine and coastal areas such as the Point Reyes, Cape Cod, and Cape Hatteras National Seashores and the Sleeping Bear Dunes and Apostle Islands National Lakeshores. 185 Finally, the National Park System includes recreation areas such as the Boston Harbor Islands, Gateway, and Golden Gate National Recreation Areas. 186

^{178.} Nat'l Park Serv., The National Park System: Acreage, at http://www.nps.gov/legacy/acreage.html (last updated June 8, 2001).

^{179.} See Nat'l Park Serv., Parks and Recreation, at http://www.nps.gov/parks.html (last visited Apr. 10, 2004) (describing National Park System holdings).

^{180.} Nat'l Park Serv., Designation of National Park System Units, at http://www.nps.gov/legacy/nomenclature.html (last updated Mar. 28, 2000).

^{181.} See CRS REPORT, supra note 35, at 24 ("A total of 39 NPS units in coastal areas have significant marine components.").

^{182.} Nat'l Park Serv., View All Parks A-Z. at http://data2.itc.nps.gov/parksearch/atoz.cfm (last visited Apr. 16, 2004) (providing a list of national parks, organized in alphabetical order).

^{183.} Id.

^{184.} *Id*.

^{185.} Id.

^{186.} Id.

a. The Organic Act

The centerpiece of the legal framework governing the Park System is the so-called "National Park Service Organic Act." Enacted in 1916 and amended on several occasions, the Organic Act created the National Park Service (NPS), defined the resource management goals to be met by that agency, and established some of the management tools to be used.

The unifying theme of NPS' legal mandate, as defined by section 1 of the Organic Act, is to "promote and regulate the use" of the Park System so as to "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." This directive is sometimes interpreted as creating an inherent conflict between resource protection and public use. In fact, the legislative history of section 1, and a long line of administrative and congressional interpretations, make it clear that resource protection is the foremost goal to be promoted by NPS. Public use of NPS-administered areas should be consistent with that goal.

In formulating the section 1 mandate, Congress in 1916 explained that, unlike national forests, which are established to promote multiple use values, units of the Park System are intended to address "the question of the preservation of nature as it exists." Congress reiterated this theme in 1980 when, in passing the Alaska National Interest Lands Conservation Act (ANILCA), it declared that the guiding principle for NPS management actions is to "strive to maintain the natural abundance, behavior, diversity, and ecological integrity of native animals as part of their ecosystem."

This stringent objective is the yardstick against which NPS measures the success of its management initiatives. It animates the section 1 mandate that NPS "conserve the scenery and the natural and historic objects and the

^{187.} National Park Service Organic Act. 16 U.S.C. §§ 1–460 (2000) (originally enacted as Act of August 25, 1916, ch. 408, 39 Stat. 535 (1916)).

^{188.} Id. § 1.

^{189.} H.R. REP. No. 64-700, at 3 (1916). See also Nat'l Rifle Ass'n of Am. v. Potter, 628 F. Supp. 903. 910 (D.D.C. 1986) (citing this legislative history in support of the "protectionist" goal of wildlife management in units of the Park System); Organized Fishermen of Fla. v. Watt, 590 F. Supp. 805. 812-13 (S.D. Fla. 1984) (upholding the Secretary of the Interior's power to close Everglades to fishing).

^{190.} Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, 94 Stat. 2371 (1980) (codified in scattered sections of the U.S.C.).

^{191.} S. REP. No. 96-413, at 171 (1979).

wild life" of the areas it administers, and it gives direction to the enforcement of the laws that govern the Park System. 192

Application of this protectionist goal is complicated, however, by the size and diversity of the Park System. NPS-administered areas range in size from small historic sites, such as the Marsh-Billings-Rockefeller National Historic Park in Woodstock, Vermont and Ford's Theatre in Washington, D.C., to huge parks with boundaries drawn to protect entire regional ecosystems, such as the 13-million acre Wrangell-St. Elias National Park and Preserve in Alaska. ¹⁹³ Just as a national seashore is managed to fulfill a different resource protection/public use goal from that of a cultural site or national parkway, a national battlefield is not administered for the same purposes as a remote wilderness park in Alaska.

Nonetheless, Congress has declared in section 1a-1 of the Organic Act that all NPS-administered units "are united through their inter-related purposes and resources into one national park system as cumulative expressions of a single national heritage." Thus, the "promotion and regulation" of these areas should be guided by "the purpose established by section 1." Section 1a-1 further provides that "[t]he authorization of activities... shall not be exercised in derogation of the values and purposes" set forth in section 1 and the statutory provisions governing a given unit of the System "except as may have been or shall be directly and specifically provided by Congress." Section 1c of the Organic Act reinforces this formula by applying section 1 and other provisions of the Organic Act to all Park System units, regardless of the classification of the area (i.e., park, monument, recreation area, lakeshore, etc.). It also directs that each unit shall be administered "in accordance with the provisions of any statute made specifically applicable to that area."

Thus, to determine what activities are permissible in an NPS unit, it is necessary to look to section 1 and the other provisions of the Organic Act that govern all areas, as well as to the laws applicable to each area individually. If permission to conduct an activity is not found in either of these authorities, and it would be contrary to the section 1 mandate or the values and purposes of the unit, then that action is presumed to be prohibited.

^{192. 16} U.S.C. § 1.

Nat'l Park Serv., Parks and Recreation, at http://www.nps.gov/parks.html (last visited Apr. 10, 2004).

^{194. 16} U.S.C. § 1a-1.

^{195.} Id.

^{196.} Id.

^{197.} Id. § 1c(b).

b. Unit-Specific Enabling Authorities

The statutory provisions individually applicable to each Park System area are important for two reasons. In addition to defining permissible uses of the unit, they also help define the activities that are prohibited generally in the Park System.

Congress' express authorization of certain consumptive use activities in some units creates a presumption that such activities are prohibited in all other units where such authorization does not exist. For example, because Congress specifically authorized hunting and trapping only in certain units, ¹⁹⁸ it follows that these consumptive uses of park resources are prohibited elsewhere. ¹⁹⁹ Similarly, with reference to areas with marine boundaries, because Congress gave express approval to commercial fishing in certain areas, ²⁰⁰ the absence of such an authorization in other areas is understood to mean that commercial fishing is "in derogation" of unit-specific purposes and values and hence prohibited. ²⁰¹ Similar exceptions to the protectionist management requirements exist for grazing, ²⁰² the sale and removal of timber, ²⁰³ and other activities. These authorizations for consumptive uses of park resources are rare exceptions to the rule that Park System units are to be administered to allow nature to follow its course without human manipulation, interference, or exploitation.

Generally, national parks and monuments are given the strongest protection since their purposes and values call for adherence to a stringent preservation mandate. National recreation areas, lakeshores, and seashores are established, in most instances, with a greater emphasis on public use and recreation. Hence, the enabling legislation for these areas usually

^{198.} See 36 C.F.R. § 2.2 (2003) (prohibiting hunting and trapping unless authorized by Congress); 48 Fed. Reg. 30,255, 30,255 (June 30, 1983) (explaining that "[t]his authority is found most frequently in connection with national recreation areas, lakeshores, and seashores").

^{199.} See Nat'l Rifle Ass'n of Am. v. Potter, 628 F. Supp. 903, 909, 912 (D.D.C. 1986) (upholding this rationale).

^{200.} For example, commercial fishing is expressly authorized in the Cape Hatteras National Seashore, 16 U.S.C. § 459a-1, and portions of the Glacier Bay National Preserve, § 410hh-4. See 36 C.F.R. § 2.3(d)(4) (2003) (prohibiting commercial fishing unless authorized by Congress).

^{201.} See 16 U.S.C. § 1a-1.

^{202.} For provisions allowing for grazing of stock, see, for example, 16 U.S.C. §§ 202 (Lassen Volcanic National Park), 271b (Canyonlands National Park), 273b (Capital Reef National Park), 406d-2 (Grand Teton National Park).

^{203.} For provisions allowing for sale and removal of timber, see, for example, 16 U.S.C. §§ 53-54 (Yosemite National Park), 203 (Lassen Volcanic National Park). This timber must be mature, or downed, and may be harvested only when necessary or advisable for the improvement or protection of the park. *Id.* § 203.

provides more management flexibility and allows for a wider range of activities.

c. Park System Regulations

Like marine sanctuaries under the NMSA, the Secretary of the Interior supplements Park System statutory requirements with regulations promulgated under the authority of section 3 of the Organic Act.²⁰⁴ The regulations set forth general requirements applicable to all units of the System,²⁰⁵ and area-specific regulations that are tailored to the unique resource management needs of particular units.²⁰⁶ In addition, there are regulations for particular types of activities, such as boating and water use activities,²⁰⁷ motor vehicle use,²⁰⁸ rights-of-way,²⁰⁹ and others.²¹⁰ Special regulations apply to Park System units in Alaska.²¹¹

d. External Threats

In recent years, increased attention has been given to the impacts that activities occurring outside units of the Park System are having on the resource and visitor use values inside of those areas. More than twenty years ago, NPS estimated that more than one-half of the threats to Park System resources originate outside of area boundaries. Foremost among these external threats, according to NPS, are nearby industrial and commercial developments, air pollution, and the growth of urban areas. Many of these concerns are relevant to NPS units with marine boundaries, and the external threat problem continues to grow.

Although external threats are a major concern to NPS, there is no single legal authority for direct action to protect Park System units from

^{204.} Id. § 3.

^{205. 36} C.F.R. pts. 1-2 (2003). Included in Part 1 are general requirements to guide NPS' administration of the system. *Id.* § 1.2. Part 2 contains regulations for a host of activities ranging from hunting and trapping, § 2.2, to collecting scientific research specimens, § 2.5. to conducting a political demonstration, § 2.51.

^{206.} Id. §§ 7.1-7.100.

^{207.} Id. §§ 3.1-3.24.

^{208.} Id. §§ 4.1-4.31.

^{209.} Id. §§ 14.1-14.96.

^{210.} See id. §§ 5.1-5.14, 9.1-10.4 (discussing commercial activities, minerals management, and disposal of wild animals).

^{211.} Id. § 13.1-13.87.

^{212.} See NAT'L PARK SERV., U.S. DEP'T OF THE INTERIOR, STATE OF THE PARKS 4, fig.1 (1980) (graphically depicting the total numbers of external and internal threats reported in National Parks).

^{213.} See id. (charting threats such as air pollution and aesthetic degradation).

activities outside their boundaries. The best tool for this purpose is section 1a-1 of the Organic Act. Section 1a-1 provides, in broad and general terms, that "[t]he authorization of activities shall be construed...in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established."²¹⁴

Enacted in 1978, section 1a-1 found little application to National Park System protection until 1998, when Department of the Interior Solicitor John Leshy issued an opinion construing the meaning of the provision.²¹⁵ In that opinion, Leshy determined that section 1a-1 applied to hard rock mining prospecting permits under review by the Bureau of Land Management on National Forest lands when necessary to protect the resources of the nearby Ozark National Scenic Riverways (ONSR), a unit of the National Park System.²¹⁶

In construing section 1a-1, the Solicitor offered a three-step analytical approach to determine if park protection law could be applied outside unit boundaries. The first question is whether the activity is subject to the control of the Secretary of the Interior.²¹⁷ If so, then under section 1a-1, the second question is whether such action would result in the "derogation of the values and purposes for which [the affected National Park System units] have been established."²¹⁸ This is essentially a factual analysis of the likely impacts of the proposed action. Finally, if such an impact can be shown, then the inquiry is whether Congress has enacted a "direct and specific provision" for the activity causing the derogation of values.²¹⁹ Absent such

^{214.} National Park Service Organic Act, 16 U.S.C. § 1a-1 (2000).

^{215.} Memorandum from John Leshy, Solicitor, U.S. Dep't of the Interior, to Bruce Babbitt, Secretary, U.S. Dep't of the Interior 17 (Apr. 16, 1998), available at http://www.doi.gov/sol/M36993.pdf [hereinafter Leshy Opinion].

^{216.} Id. at 2-4, 17. At issue was the possible prospecting for lead deposits in the Mark Twain National Forest. There was a concern that lead prospecting would lead to lead mining, which would result in water pollution in the vicinity of the mines within the Forest because of the karst geology in this region of Missouri (rocks with great solubility). Although those sites were miles away from the ONSR, the Solicitor's concern was that such pollution, should it occur, would reach the ONSR through the karst geology and have an adverse effect on water quality in the Park. Although these concerns were somewhat attenuated and it was unclear whether the record could support them, this situation created an opportunity for the Solicitor to interpret section 1a-1. Id.

^{217.} Id. at 4.

^{218. 16} U.S.C. § 1a-1; Leshy Opinion, supra note 215, at 14-15.

^{219.} Leshy Opinion, supra note 215, at 23. The Solicitor concluded that only a law expressly authorizing a precise activity and referencing possible National Park System impacts would meet this test. He rejected the view that a law generally authorizing the activity, as in the ONSR case, 16 U.S.C. § 520, governing hardrock mining, would suffice for this purpose. Instead, express reference to allowing adverse impacts to Parks was required. *Id.* By taking this step, the Solicitor established an

an authorization, the Act prohibits the activity involved. In this manner, section 1a-1 extends protection to resources inside the National Park System from certain activities occurring outside the boundaries of its units.

Under the Leshy opinion, section 1a-1 could have important application to National Park System units located in coastal areas. For example, if the Secretary established that the development of a lease under the Outer Continental Shelf Lands Act posed an oil spill risk to a National Park System unit, according to the Leshy Opinion such a threat would constitute a basis for prohibiting the lease issuance, or plan of operation approval, by the Minerals Management Service (which is part of the Department of the Interior and thus satisfies the section 1a-1 requirement for action by the Secretary). Many other potential actions affecting National Park System MPAs would arguably fall under section 1a-1 as interpreted by the Leshy opinion. 220

e. Common Law Authorities

Interested parties can also protect Park System units, like any of the federal reservations discussed in this Article and federal MPAs generally, under three common law doctrines: nuisance case law; the public trust doctrine; and federal police powers under the Property and Commerce Clauses of the Constitution.²²¹

To establish a cause of action under nuisance, a claimant must show an intentional and unreasonable interference with federal property rights.²²² The interference must result in substantial physical harm, and a balancing test applies to weigh the gravity of the harm against the benefit of the activity creating the nuisance.²²³ For example, in *United States v. Atlantic-Richfield Co.*, the court applied common law principles of trespass to enjoin

exceptionally broad reach to section 1a-1. He cited only three laws as meeting this test (Clean Air Act, Geothermal Steam Act, and the Surface Mining Control and Reclamation Act). *Id.* at 20.

^{220.} Since it was issued in 1998, there is no other instance where section 1a-1 has been applied to regulate or prohibit actions outside park boundaries, perhaps demonstrating a low level of political commitment.

^{221.} These principles may also extend, depending on the facts, to areas set aside under state or other local law.

^{222.} See, e.g., Milwaukee v. Illinois and Michigan, 451 U.S. 304, 348 (1981) (Blackmun, J. dissenting) (asserting that "[a] public nuisance involves unreasonable interference with a right common to the general public").

^{223.} See id. at 349 (explaining that courts determine "[w]hether a particular interference qualifies as unreasonable [and] whether the injury is sufficiently substantial to warrant injunctive relief" after considering "particular facts and circumstances").

fluoride emissions from an industrial plant impacting Glacier National Park and the Flathead National Forest in Montana.²²⁴

The public trust doctrine asserts that the federal government holds public lands and waters "in trust" for the people of the United States. The responsible federal agency cannot alienate those lands and waters and must protect them in its role as trustee. The District Court for the Northern District of California has applied this to the protection of national parks, although it also held that NPS' public trust duty is indistinguishable from its statutory responsibilities under the Organic Act and other laws. 228

Leading cases under the Property Clause leave no doubt that federal agencies can regulate conduct on adjacent lands and waters adversely affecting protected areas.²²⁹ As applied to units of the Park System, this authority has been used to enforce hunting prohibitions,²³⁰ and commercial enterprise regulations.²³¹ The restriction imposed must be reasonably related to the end to be achieved.²³² A similar analysis is applied to exercising police power under the Commerce Clause, although the Property Clause is typically the more appropriate authority for protecting federally owned areas.

^{224.} United States v. Atlantic-Richfield Co., 478 F. Supp. 1215, 1217–18 (D. Mont. 1979). But see United States v. County Bd. of Arlington County, 487 F. Supp. 137, 142 (E.D. Va. 1979) (rejecting state common law of nuisance as applied to aesthetic impacts of high-rise buildings on national monuments in Washington, D.C.).

^{225.} See, e.g., Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387, 457 (1892) (stating that lands owned by the State are held "in trust . . . for the use of the people at large").

^{226.} See. e.g., Camfield v. United States, 167 U.S. 518, 524 (1897) (asserting that the federal government "would be recreant to its duties as trustee for the people of the United States to permit any individual or private corporation to monopolize [federal lands] for private gain").

^{227.} Three cases involving Redwoods National Park address this issue. See Sierra Club v. Dep't of the Interior, 424 F. Supp. 172, 172–73 (N.D. Cal. 1976); 398 F. Supp. 284, 287 (N.D. Cal. 1975); 376 F. Supp. 90, 96 (N.D. Cal. 1974) (finding that the Secretary of the Interior has a legal duty to protect the park under the public trust doctrine and the Redwood National Park Act).

^{228.} Sierra Club v. Andrus, 487 F. Supp. 443, 449 (D.D.C. 1980).

^{229.} See, e.g., Kleppe v. New Mexico, 426 U.S. 529, 538, 543 (1976) (discussing Camfield v. United States, 167 U.S. 518 (1897), and emphasizing that the Property Clause allows Congress to legislate over public lands despite contrary state legislation); United States v. Lindsey, 595 F.2d 5, 6 (9th Cir. 1979) (stating that "[i]t is well established that this clause grants to the United States power to regulate conduct on non-federal land when reasonably necessary to protect adjacent federal property or navigable waters").

^{230.} United States v. Brown, 552 F.2d 817, 821 (8th Cir. 1977).

^{231.} See Free Enterprise Canoe Renters Ass'n v. Watt, 711 F.2d 852, 856 (8th Cir. 1983) (stating that the Park Service may require permits allowing commercial activity within the Ozark National Scenic Riverways).

^{232.} Minnesota v. Block, 660 F.2d 1240, 1251 (8th Cir. 1981).

2. The National Wildlife Refuge System

The National Park System embraces a wide range of resource protection goals, such as the preservation of natural features, scenery, wildlife, and cultural and historic properties. The National Wildlife Refuge System (Refuge System), by contrast, serves a more focused objective—protecting wildlife and its habitat.

The Refuge System consists of two types of areas: national wildlife refuges and waterfowl production areas (WPAs). There are 535 national wildlife refuges, encompassing over 95 million acres.²³³ These areas vary in size from less than one acre (the Mille Lacs Refuge in Minnesota) to almost 20 million acres (the Yukon Delta Refuge in Alaska). Of this total, almost 80 million acres are located in 16 refuges in Alaska.²³⁴

Approximately 140 national wildlife refuges are located in marine and coastal areas. For example, the Ten Thousand Islands National Wildlife Refuge off the coast of Florida encompasses tidal fringes and mangrove forests on numerous islands, and protects approximately 200 species of fish, seabirds, bottle-nosed dolphins, manatees, and sea turtles. In the Great Lakes, the Michigan Islands National Wildlife Refuge consists of eight islands in Lakes Michigan and Huron that provide refuge for migratory and colonial nesting birds, fish, and plant species. Among the Pacific island territories, the Palmyra Atoll National Wildlife Refuge protects habitats for migratory seabirds as well as open ocean and submerged lands, including 16,094 acres of coral reef habitat. Also in the Pacific, the Kingman Reef National Wildlife Refuge consists of coral reefs and submerged lands that protect corals, many species of fish, migratory seabirds, and sea turtles.

WPAs are small wetland areas managed primarily to increase waterfowl production. There are nearly 3,000 WPAs covering 668,000

^{233.} U.S. Fish & Wildlife Serv., America's National Wildlife Refuges, available at http://refuges.fws.gov/generalInterest/factSheets/FactSheetAmNationalWild.pdf (last visited Apr. 10, 2004)

^{234.} U.S. FISH & WILDLIFE SERV., DRAFT ENVIRONMENTAL IMPACT STATEMENT: MANAGEMENT OF NATIONAL WILDLIFE REFUGES 4 (1988) [hereinafter Refuge EIS].

^{235.} CRS REPORT, supra note 35, at 25.

^{236.} U.S. Fish & Wildlife Serv., Ten Thousand Islands National Wildlife Refuge. at http://refuges.fws.gov/profiles/index.cfm?id=41555 (last visited Apr. 10, 2004).

^{237.} U.S. Fish & Wildlife Serv., Michigan Islands National Wildlife Refuge, at http://refuges.fws.gov/profiles/index.cfm?id=31522 (last visited Apr. 10, 2004).

^{238.} U.S. Fish & Wildlife Serv., Palmyra Atoll National Wildlife Refuge Overview. at http://refuges.fws.gov/profiles/index.cfm?id=12533 (last visited Apr. 10, 2004).

^{239.} U.S. Fish & Wildlife Serv., Kingman Reef National Wildlife Refuge, at http://refuges.fws.gov/profiles/index.cfm?id=12534 (last visited Apr. 10, 2004).

acres, mostly in the Midwest and Great Plains.²⁴⁰ All units of the Refuge System are administered by the U.S. Fish and Wildlife Service (FWS).

a. The Refuge System Administration Act

More than six decades after the designation of the first national wildlife refuge (Pelican Island, 1903), a uniform set of management principles to govern the Refuge System was created under the National Wildlife Refuge System Administration Act of 1966 (Refuge Administration Act).²⁴¹ The Refuge Administration Act, which serves as an organic act for the National Wildlife Refuge System, has itself undergone a series of amendments with the most recent changes occurring under the National Wildlife Refuge System Improvement Act of 1997 (Refuge Improvement Act).²⁴²

The Refuge Administration Act authorizes the Secretary of the Interior by regulation to "permit the use of any area within the System for any purpose, including but not limited to hunting, fishing, public recreation and accommodations, and access whenever he determines that such uses are compatible with the major purposes for which such areas were established." FWS must administer all units of the Refuge System. 244 One court construed this delegation as imposing a duty to manage the refuge "by regulating human access in order to conserve the entire spectrum of wildlife" found there. 245

The purposes of a refuge unit, under the "compatibility test" of the Refuge Administration Act, are determined from the enabling authority for the unit. Whereas most units of the Park System find their origin in federal statutes, 246 national wildlife refuges are established by an act of Congress,

^{240.} U.S. Fish & Wildlife Serv., America's National Wildlife Refuge System Waterfowl Production Areas: Prairie Jewels of the Refuge System, at http://library.fws.gov/Pubs9/NWRS_waterfowl01.pdf (last visited Apr. 10, 2004) (listing primary WPA host states such as the Dakotas, Minnesota, and Montana).

National Wildlife Refuge System Administration Act of 1966, 16 U.S.C. §§ 668dd-668ee
 (2000).

^{242.} National Wildlife Refuge System Improvement Act of 1997, Pub. L. No. 105-57, 111 Stat. 1252 (1997) (codified at 16 U.S.C. §§ 668dd-668ee (2000)).

^{243. 16} U.S.C. § 668dd(d)(1)(A).

^{244.} Id. § 668dd(a)(1).

^{245.} Trustees for Alaska v. Watt. 524 F. Supp. 1303, 1309 (D. Alaska 1981), aff d. 690 F.2d 1279 (9th Cir. 1982).

^{246.} See, e.g., Antiquities Act of 1906, 16 U.S.C. §§ 431–433 (2000) (allowing Presidents to establish national monuments by proclamation).

presidential or secretarial order,²⁴⁷ donation from private parties, or transfer from other agencies.²⁴⁸ Some of these authorities, such as acts of Congress, provide clearly stated purposes against which the compatibility standard can be measured.²⁴⁹ In the case of areas incorporated through transfer or donation, however, frequently there is no statement of purpose for the area, and it is necessary to look to the transferring statute to determine what activities are compatible. Acquisition pursuant to the ESA, for example, would dictate that activities occurring on the refuge must be consistent with the goal of conserving the endangered or threatened species found there.²⁵⁰

The Refuge Improvement Act of 1997 provides further guidance regarding how the Secretary should manage the overall refuge system. For example, the 1997 amendments established a new process for determining compatible uses of refuges. These amendments also adopted an overall mission of the Refuge System to conserve fish, wildlife, plants, and their habitats. Furthermore, the amendments dictate that all human uses of the refuge must be compatible with this overall mission. The highest priority human uses, known as "wildlife-dependent recreational uses," include consumptive uses such as hunting and fishing, as well as non-consumptive uses such as wildlife observation and photography. In managing such uses, FWS is required to issue a "comprehensive conservation plan," which includes a determination of the compatibility of wildlife-dependent recreational uses. In effect, the 1997 amended Act corresponds to the 1916 organic act for the National Park System.

^{247.} Secretarial authority to create refuges is derived from numerous statutes, the most significant of which are in the Endangered Species Act of 1973 (ESA), 16 U.S.C. § 1533(b)(2) (2000), and the Migratory Bird Conservation Act, 16 U.S.C. § 715d (2000).

^{248.} Authority to incorporate donated and transferred lands into the Refuge System comes from several statutes, including the ESA, 16 U.S.C. § 1534(a)(2), the National Wildlife Refuge System Administration Act, 16 U.S.C. § 668dd(a)(6), the Fish and Wildlife Improvement Act, 16 U.S.C. § 715d, 742f(b) (2000), and the Fish and Wildlife Conservation Act of 1980, 16 U.S.C. § 2901(b)(2) (2000).

^{249.} In the case of the Charles M. Russell National Wildlife Refuge in Montana, where there was some question as to whether there was a dual wildlife management and grazing purpose, the Ninth Circuit held that grazing must be given secondary consideration. Schwenke v. Sec'y of the Interior. 720 F.2d 571, 572, 574-75, 577-78 (9th Cir. 1983).

^{250.} The purposes of each refuge are listed in Appendix B of the 1988 FWS Draft EIS on Refuge System Administration. See REFUGE EIS, supra note 234, at B-3 to B-54.

^{251. 16} U.S.C. § 668dd(a)(3)(A)-(D).

^{252.} Id. § 668dd(a)(2).

^{253.} Id. § 668ee(1).

^{254.} Id. § 668ee(2).

^{255.} Id. § 668dd(e)(2).

FWS has administered the compatibility test flexibly. While the purposes of protecting and enhancing wildlife and wildlife habitat have primacy, FWS allows a wide variety of secondary uses ranging from recreational activities, such as boating, hiking, and hunting, to commercial uses, such as timber harvesting and oil and gas production. Refuge managers have considerable discretion in making compatibility determinations.

Secondary uses on Refuge System lands engender controversy and litigation. In one of the leading cases under the Refuge Administration Act, Defenders of Wildlife v. Andrus, the court prohibited waterskiing and the use of power boats with unlimited horsepower (allowed by FWS) after finding those activities to be incompatible with the Ruby Lake National Wildlife Refuge's primary purpose of protecting migratory waterfowl. Another case upheld FWS regulations "severely restricting" public access across sensitive refuge lands on incompatibility grounds. ²⁵⁷

b. Statutes Defining Permissible Uses of Refuge System Lands

Several statutes define activities that are permissible on Refuge System lands, provided that such activities satisfy the compatibility test. The Refuge Recreation Act, for example, authorizes the Secretary to allow public recreation as a secondary use, but only "to the extent that is practicable and not inconsistent with ... the primary objectives for which each particular area is established." 258

While not authorizing activities, the Refuge Revenue Sharing Act indicates which secondary uses may be permissible by requiring that "net receipts" resulting from those activities be shared with the counties in which the refuge is located.²⁵⁹ Funds come "from the sale or other disposition of animals, . . . timber, hay, grass, or other products of the soil, minerals, shells, sands, or gravel" from refuge lands.²⁶⁰

Clearly defined statements of purposes and authorizations for permissible activities in Alaska refuges are set forth in ANILCA.²⁶¹ Primary purposes of Alaska refuges are conserving the natural abundance

^{256.} Defenders of Wildlife v. Andrus, 455 F. Supp. 446, 448 (D.D.C. 1978).

Coupland v. Morton, [1975] 5 Envtl. L. Rep. (Envtl. L. Inst.) 20,504, 20,506 (E.D. Va. Feb. 26, 1975).

^{258.} Refuge Recreation Act, 16 U.S.C. § 460k (2000).

^{259.} Id. § 715s(c)(1)(C).

^{260.} Id. § 715s(a).

Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487 § 302(B), 94 Stat.
 2384 (1980) (codified at 16 U.S.C. § 668dd (2000).

and diversity of fish and wildlife populations and their habitats, and protecting refuge water resources and water quality.²⁶² In addition to these general purposes, individual refuges in Alaska have their own purposes.²⁶³

c. Refuge System Regulations

Pursuant to authority granted by the Refuge Administration Act and the Refuge Recreation Act, FWS has promulgated regulations to govern the Refuge Systems. These regulations include public use and access restrictions for the entire Refuge System, ²⁶⁴ as well as for certain refuges. ²⁶⁵ They spell out prohibited acts, ²⁶⁶ such as harming wildlife. ²⁶⁷ The regulations govern the issuance of rights-of-way, ²⁶⁸ mineral activities, ²⁶⁹ range and wildlife management, ²⁷⁰ hunting, ²⁷¹ and sport fishing. ²⁷² There are special regulations for refuges in Alaska. ²⁷³

3. The Wilderness Preservation System

Although management agencies have for many years exercised administrative authority to protect the pristine character of some federal land areas, it was not until 1964 that Congress formally recognized the concept of wilderness with the enactment of the National Wilderness Preservation System Act (Wilderness Act). Under this law and several subsequent statutes, Congress established a system of federal lands and waters, which affords maximum protection to designated areas. The National Wilderness Preservation System consists of 105 million acres in 662 wilderness areas. In addition, millions of acres are included in wilderness study areas (WSAs) to determine their status as permanent wilderness areas. For example, as of December 2003, the Bureau of Land

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262. Id.
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^{263.} Id. § 302.

^{264. 50} C.F.R. §§ 26.11–26.33 (2003).

^{265.} Id. § 26.34.

^{266.} Id. §§ 27.11-27.97.

^{267.} Id. § 27.51.

^{268.} Id. § 29.21.

^{269.} Id. §§ 29.31-29.32.

^{270.} Id. §§ 30.1-31.17.

^{271.} Id. §§ 32.1-32.2.

^{272.} Id.

^{273.} Id. §§ 36.1-36.42.

^{274.} National Wilderness Preservation System Act, 16 U.S.C. §§ 1131-1136 (2000).

^{275.} Wilderness.net, The National Wilderness Preservation System: Wilderness Fast Facts. at http://www.wilderness.net/index.cfm?fuse=NWPS&sec=fastFacts (last visited Feb. 9, 2004).

Management (BLM) alone was responsible for managing 604 WSAs totaling 17.2 million acres.²⁷⁶

Several areas of designated wilderness include portions of the marine environment. One example is the Aleutian Islands Wilderness Area that consists of approximately 1.3 million acres on seven island groups in the state of Alaska.²⁷⁷ This wilderness area provides protection for sea otters, sea lions, and harbor seals found along the kelp-rich shore of the islands, as well as many species of marine fish within surrounding waters.²⁷⁸ Another example is the Florida Keys Wilderness Area that consists of approximately 6,197 acres on numerous islands between the Atlantic Ocean and the Gulf of Mexico.²⁷⁹ This area protects the marine environment around those islands consisting of tidal sand flats, mangrove islands, and beaches.²⁸⁰ In addition, The Ocean Conservancy has undertaken a major initiative to establish a system of ocean wilderness areas.²⁸¹ The initiative seeks to provide wilderness protection to at least five percent of U.S. oceans.²⁸² So far, the federal government has designated three ocean sites as Ocean Wilderness Areas.²⁸³ The designation of these areas as wilderness protects the ocean environment by prohibiting fishing and other extractive activities.284

In addition, Congress passed the Wilderness Act to protect areas "where the earth and its community of life are untrammeled by man." These are areas "where man himself is a visitor who does not remain." 286

^{276.} Bureau of Land Mgmt., National Landscape Conservation System: Wilderness Study Areas, at http://www.blm.gov/nlcs/wilderness.htm (last updated Apr. 8, 2002).

^{277.} Wilderness.net, Aleutian Islands Wilderness, at http://www.wilderness.net/ index.cfm?fuse=NWPS&sec=wildView&WID=5 (last visited Apr. 8, 2004).

^{278.} Id.

^{279.} Wilderness.net, Florida Keys Wilderness, *at* http://www.wilderness.net/index.cfm?fuse=NWPS&sec=wildView&WID=188 (last visited Apr. 8, 2004).

^{280.} Southeast Region 4, U.S. Fish & Wildlife Serv., Key West National Wildlife Refuge, at http://southeast.fws.gov/KeyWest/index.html (last visited Apr. 8, 2004).

^{281.} The Ocean Conservancy, The Ocean Wilderness Challenge, at http://www.oceanconservancy.org/dynamic/getinvolved/owc/owc.htm (last visited Apr. 8, 2004).

^{282.} Id.

^{283.} *Id.* These areas are the Navassa Island Ocean Wilderness Area at 500 square nautical miles, the Kingman Reef Ocean Wilderness Area at 570 square nautical miles, and the Tortugas Ocean Wilderness Area at 197 square nautical miles.

^{284.} *Id.* No single agency has exclusive responsibility for managing wilderness lands; jurisdiction is exercised by BLM, FWS, NPS, and the United States Forest Service (USFS). Wilderness areas overlay lands already administered by these agencies. For example, certain lands within some units of the Park System and the Refuge System are designated wilderness areas.

^{285.} National Wilderness Preservation System Act, 16 U.S.C. § 1131(c) (2000).

^{286.} Id.

The purpose of the Act is "to secure for the American people of present and future generations the benefits of an enduring resource of wilderness."²⁸⁷

The Wilderness Act established the National Wilderness Preservation System composed of federally owned parcels, ²⁸⁸ and directed the study of national forest primitive areas and roadless areas within the Park and Refuge Systems for potential designation. ²⁸⁹ Under the Federal Land Policy and Management Act of 1976 (FLPMA), ²⁹⁰ BLM lands are included in the system.

The Wilderness Act defines a "wilderness area" as an undeveloped area of federal land, without permanent improvements, containing at least 5,000 acres, or of "sufficient size as to make practicable its preservation and use in an unimpaired condition." The requirements for evaluation of prospective wilderness areas vary according to the management agency involved.

After the land management agency has conducted its evaluation of prospective wilderness areas, including detailed public review, it makes a recommendation to the President for inclusion or exclusion. The President then makes a recommendation to Congress. In the end, Congress is free to adopt, modify, or ignore the President's recommendations. Congressional designation frequently occurs on a state-by-state basis.

Once Congress has designated an area as "wilderness," commercial use and development is strictly limited; only activities authorized by statute are permissible. Activities such as the use of motorized vehicles and mining are permitted only to the extent they were authorized prior to passage of the Wilderness Act. The construction of permanent roads and most structures and installations is prohibited. While mineral activities, including prospecting, are permitted for the purposes of gathering information about mineral reserves, Congress prohibited new leases for general mining in wilderness areas as of January 1, 1984. 298

^{287.} Id. § 1131(a).

^{288.} Id.

^{289.} Id. § 1132.

^{290.} Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1782 (2000).

^{291. 16} U.S.C. § 1131(c).

^{292.} Id. § 1132(b)-(d).

^{293.} Id.

^{294.} Id.

^{295.} Id. § 1133(c).

^{296.} Id. § 1133(c)-(d).

^{297.} Id. § 1133(c).

^{298.} Id. § 1133(d)(2), (3).

In addition to statutory proscriptions, the agencies rely upon regulations to govern the management and use of wilderness areas.²⁹⁹ These regulations generally track the activities permitted under the Act and provide that if there is a conflict among competing uses, wilderness values will be given priority.³⁰⁰ In general, commercial activities are prohibited unless provided otherwise by legislation.³⁰¹

4. Features of Land-Based Legal Authorities Relevant to MPAs

The legal authorities applicable to land-based conservation system units are relevant to MPAs in many ways. In general, these legal authorities provide the most effective protection as a result of their strong conservation orientation. National parks, national wildlife refuges, and wilderness areas are all intended to fulfill strict conservation mandates, and therefore, there is relatively little risk that activities occurring within such areas will be inconsistent with MPA preservation goals.

Nevertheless, land-based conservation authorities provide only limited protection to resources within MPAs. These legal authorities cover a relatively small number of areas (59 parks and 140 refuges). In addition, the applicability of the protective provisions of the land-based legal authorities to surrounding marine environments is limited. For example, of the fifty-nine NPS units located in coastal areas, only thirty-nine actually have boundaries that extend beyond the shoreline to encompass water areas. A similar problem exists in refuge and wilderness areas. The designation of new parks, refuges, and wilderness areas is a complex and difficult process, generally requiring congressional action, and therefore has limited potential for establishing new federal protected areas that will extend to the marine environment. However, the authority to create conservation areas is not limited to federal law. State authorities, and in

^{299.} See 36 C.F.R. pt. 293 (2003) (setting forth regulations for the U.S. Forest Service); 43 C.F.R. pt. 6300 (2003) (setting forth regulations for the BLM); 50 C.F.R. pt. 35 (2003) (setting forth regulations for the FWS).

^{300. 36} C.F.R. § 293.2; 43 C.F.R. § 6301.1; 50 C.F.R. § 35.3.

^{301.} See 43 C.F.R. § 6302.20 (2003) (prohibiting commercial enterprises in BLM wilderness areas). But see 36 C.F.R. § 293.8 (stating that the Forest Service may permit commercial services and temporary structures "to the extent necessary for realizing the recreational or other wilderness purposes"); 50 C.F.R. § 35.6(e) (authorizing the Refuge Manager to permit services and temporary structures for wilderness purposes).

^{302.} Marine Protected Areas of the United States, Inventory of Sites—Inventory Atlas: Supplement 1c. National Park Service Program Description. at http://mpa.gov/inventory/inv_status/sup1c_doi_nps.html (revised Feb. 12, 2004).

^{303.} Id.

some cases local, territorial, and tribal authorities, have set aside areas that achieve similar conservation results. These nonfederal governmental authorities can designate additional conservation areas.

Although the opportunity to establish new conservation areas subject to strict federal constraints is limited, there are important legal tools that can be used, in limited ways, for added protection to areas outside park, refuge, and wilderness boundaries. The legal mechanisms available for this purpose rely upon the principle of "extraterritorial" application of protective measures to control activities outside conservation system unit areas in the interest of protecting the resources located within those areas.

One potential source of such legal protection is found in section 1a-1 of the NPS Organic Act.³⁰⁴ As described above, this provision has been construed by the Solicitor of the Department of the Interior (DOI) to prohibit activities authorized by the Secretary, no matter where they are located, if they would have the effect of diminishing the value of a unit of the NPS.³⁰⁵ Thus, if a proposed activity by an agency within the DOI would adversely affect the resources of a coastal NPS area, it could not be approved. Such activities would also be subject to restrictive terms and conditions imposed under section 1a-1.³⁰⁶ This provision therefore theoretically provides a kind of buffer zone around national park areas.

There are several impediments to effective implementation of section 1a-1. Foremost among these is the reluctance of the DOI to invoke this provision as described in the Leshy opinion.³⁰⁷ Although enacted in 1978, the DOI has only applied section 1a-1 in the Ozark National Riverway situation.³⁰⁸ Prior to the Leshy opinion, the Department did not take a definitive position regarding its meaning because extending park protection in such a manner is politically controversial. As a result, section 1a-1 is unlikely to be invoked in many cases.

In addition to the problems presented by administrative reluctance to apply section 1a-1, the provision has several inherent restrictions which limit its ability to protect the marine environment. It applies only when a clear threat to a park unit is established, 309 and only restricts actions taken

^{304.} National Park Service Organic Act, 16 U.S.C, § 1a-1 (2000); see supra Part II.C.1.a.

^{305. 16} U.S.C. § 1a-1; see supra Part II.C.1.d.

^{306. 16} U.S.C. § 1a-1.

^{307.} See supra Part II.C.1.d.

^{308.} See supra note 216 and accompanying text.

^{309.} See Leshy Opinion, supra note 215, at 23-24 (explaining that section 1a-1 should not be read to require "the Secretary to give credence to every imaginable threat," but rather depends on how "direct, specific, and credible" the threat is).

under the authority of the Secretary of the Interior.³¹⁰ Thus, unsustainable fishing approved by the National Marine Fisheries Service or construction approved by the U.S. Army Corps of Engineers would not be within the reach of section 1a-1.

Despite these limitations, section 1a-1 offers a useful blueprint for other federal laws. Providing a mandate to protect resources within designated areas from harmful activities occurring elsewhere is of considerable value to the goal of conserving MPAs. Indeed, that principle is arguably recognized in the "no harm" requirement of section 5 of Executive Order 13,158, which applies to all MPAs and all federal agencies.³¹¹ Unfortunately, section 5 is not enforceable by third parties; therefore its protections rely solely on good-faith application by agencies. In addition, DOI apparently takes the position that this provision does not apply unless an area is formally designated as an MPA.

In addition to section 1a-1, the concept of extended protection for federal conservation system units beyond their boundaries can be advanced through common law principles.³¹² In particular, the Property Clause of the U.S. Constitution gives federal agencies the authority to restrict activities that are potentially harmful to resources inside these areas.³¹³ Common law principles of nuisance and the public trust doctrine also have potential application.314 Before these principles can be invoked, however, a compelling resource threat must be established through an adequate evidentiary record. The federal government has the sole authority to invoke the Property Clause,³¹⁵ a measure it has been reluctant to take due to the political ramifications of using federal power to regulate nonfederal activities occurring outside protected areas. Likewise, plaintiffs have a difficult time prevailing in cases arising under the nuisance and public trust doctrines. Such actions require plaintiffs to establish compelling fact situations and carry out aggressive, costly, and often times difficult litigation strategies. As a result, common law legal strategies are of limited value in extending protection to MPAs.

In the overall scheme of MPA conservation, it is clear that the establishment of federal conservation system units is not by itself an adequate mechanism to achieve meaningful conservation. At most, these

^{310.} National Park Service Organic Act, 16 U.S.C. § 1a-1 (2000).

^{311.} Exec. Order No. 13, 158, 3 C.F.R. § 276 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{312.} See supra Part II.C.1.e.

^{313.} See supra note 225 and accompanying text.

^{314.} See supra notes 221-228 and accompanying text.

^{315.} U.S. CONST. art. IV, § 3, cl. 2,

areas provide intermittent zones of protection within the marine environment. If a network of MPAs is to be created and protected, more comprehensive legal mechanisms will be needed.

D. Species-Based Protection for Marine Habitat

The legal authorities discussed in the previous parts of this Section are concerned primarily with area-based management. Because most MPAs are intended to protect, at least to some degree, wildlife and wildlife habitat, existing species-based conservation laws must also be considered as part of the baseline of authorities relevant to MPA protection. Those laws are discussed in this subsection.

Three federal statutes designed to protect particular species provide important protection for marine habitat as well. The Endangered Species Act (ESA),³¹⁶ the Magnuson-Stevens Fishery Conservation and Management Act (FCMA),³¹⁷ and Marine Mammal Protection Act (MMPA)³¹⁸ each provide strong protection for marine species, including fish, sea turtles, whales, dolphins, sea otters, pinnipeds, and polar bears, through prohibitions against take³¹⁹ and other means. Moreover, each of these statutes protects marine habitat, either directly or indirectly.

1. Endangered Species Act

Adopted in 1973, the ESA is arguably the strongest wildlife conservation law in the United States and one of the strongest in the world. Underscoring the importance of habitat protection for the prevention of endangerment and the recovery of endangered species, Congress declared that one of the primary purposes of the ESA is to provide a means to conserve the ecosystems upon which threatened and endangered

^{316.} Endangered Species Act, 16 U.S.C. §§ 1531-1544 (2000).

^{317.} Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. §§ 1801–1883 (2000).

^{318.} Marine Mammal Protection Act, 16 U.S.C. §§ 1361-1421h (2000).

^{319.} See infra note 324 and accompanying text.

^{320.} Anne Lindquist, Comment, Job's Plight Revisited: The Necessity Defense and the Endangered Species Act, 33 ENVIL. L. 449, 453 (2003); see Donald C. Baur & Wm. Robert Irvin. Overview. in ENDANGERED SPECIES ACT: LAW, POLICY, AND PERSPECTIVES xi-xviii (Donald C. Baur & Wm. Robert Irvin eds., 2002) (asserting that "the ESA stands out as perhaps the most stringent, most comprehensive, and most controversial" environmental statute); MICHAEL J. BEAN & MELANIE J. ROWLAND, THE EVOLUTION OF NATIONAL WILDLIFE LAW 198-202 (3rd ed. Praeger Publishers 1997) (1983) (providing background on the ESA and its fundamental units).

species depend.³²¹ To achieve this purpose, the ESA provides several avenues for habitat protection.

The sine qua non of protection for a species or habitat under the ESA is listing of a species as threatened or endangered. The Secretary of the Interior generally decides whether to list a species as threatened or endangered. In the case of most marine species, however, the Secretary of Commerce, acting through the National Marine Fisheries Service, makes the decision. 323

Once the federal government lists a species as endangered, it is entitled to protection under two major provisions. First, the ESA prohibits the "take" of an endangered species. As defined by the ESA, take means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Regulations further define "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns including breeding, feeding, or sheltering." The U.S. Supreme Court has upheld the validity of these regulations. The U.S.

Second, the ESA requires that critical habitat be designated for a species at the time it is listed as either threatened or endangered. Critical habitat is defined as those areas that are "essential to the conservation of the species," and areas currently occupied by the species, which may require special management considerations or protection. In designating critical habitat, the federal government is required to take into account economic and other impacts resulting from the designation. Once critical habitat is designated, all federal agencies must insure that any actions they authorize, fund, or carry out are not likely to "result in the destruction or adverse modification of [critical] habitat." Federal agencies fulfill this obligation

^{321. 16} U.S.C. § 1531(b).

^{322.} Id. § 1533(a).

^{323.} Id.

^{324.} Id. § 1538(a)(1)(B)—(C). The ESA further provides that, "[t]he Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 1538(a)(1)" of the ESA. Id. § 1533(d). Threatened species managed by the Secretary of the Interior receive the same protection as endangered species unless species-specific regulations provide otherwise. 50 C.F.R. § 17.31 (2002). Threatened species managed by the Secretary of Commerce, which covers most marine species, are protected in accordance with species-specific regulations. 50 C.F.R. pt. 223 (2003).

^{325. 16} U.S.C. § 1532(19).

^{326. 50} C.F.R. § 17.3.

^{327.} Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687, 708 (1995).

^{328. 16} U.S.C. § 1533(a)(3).

^{329.} Id. § 1532(5)(A)(i).

^{330.} Id. § 1533(b)(2).

^{331.} Id. § 1536(a)(2).

by consulting with either FWS or the National Marine Fisheries Service (NMFS).³³²

Both the prohibition against take of a listed species and the designation of critical habitat offer potentially important protections for marine species and their habitats. For example, NMFS has used the take prohibition to protect threatened and endangered sea turtles by requiring the use of turtle excluder devices in shrimp fishing nets.³³³ Similarly, NMFS could use the take prohibition to prohibit a particular type of fishing, such as bottom trawling, where it could be shown that the fishing method is killing or injuring members of a listed marine species by significantly impairing their breeding, feeding, or sheltering. This potential protection of marine habitat, however, remains largely theoretical for two reasons. First, there are relatively few marine species listed under the ESA.³³⁴ Second, general enforcement of the take prohibition, particularly with regard to its restrictions on habitat modification or degradation, has been quite limited.³³⁵

The protection of critical habitat for marine species could be significant.³³⁶ For example, the development of wind energy generation facilities in federally-managed waters (such as the Nantucket Sound controversy discussed in the Introduction of this Article) could require a permit from the U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbors Act of 1899.³³⁷ Since potentially affected waters could contain critical habitat for the endangered northern right whale, the Corps would be required to consult with NMFS before issuing a permit.³³⁸ If the

^{332. 50} C.F.R. § 402.01(b) (2002).

^{333.} Id. §§ 223.206, 223.207.

^{334.} As of February 2004, there were twelve marine species listed as threatened and nineteen marine species listed as endangered. U.S. Nat'l Marine Fisheries Serv., Species Listed Under the Endangered Species Act of 1973, at http://www.nmfs.noaa.gov/prot_res/species/ESA_species.html (last visited Apr. 8, 2004).

^{335.} Steven P. Quarles & Thomas R. Lundquist, When Do Land Use Activities "Take" Listed Wildlife Under ESA Section 9 and the "Harm" Regulation?, in ENDANGERED SPECIES ACT: LAW, POLICY, AND PERSPECTIVES 207, 210-11 (Donald C. Baur & Wm. Robert Irvin eds. 2002); Sean C. Skaggs, Judicial Interpretation of Section 9 of the Endangered Species Act Before and After Sweet Home: More of the Same, in ENDANGERED SPECIES ACT, supra, at 253.

^{336.} As of December 2003, critical habitat had been designated for seventeen species which spend all or part of their lives in the marine environment. 50 C.F.R. pt. 226 (2003) (Hawaiian Monk seal. Steller sea lion, right whale, chinook salmon, sockeye salmon, leatherback turtle, green turtle, hawksbill turtle, Coho salmon, Johnson's seagrass, Gulf sturgeon); 50 C.F.R. § 17.11 (2002) (steelhead, chum salmon); 50 C.F.R. § 17.95 (2002) (spectacled eider, Steller's eider, marbled murrelet); 48 C.F.R. § 1852.247-71 (2003) (Florida manatee).

^{337.} See Rivers and Harbors Appropriation Act of 1899, 33 U.S.C. § 403 (2000) (requiring approval prior to obstruction of navigable waters).

^{338.} See supra notes 330-31 and accompanying text.

construction of the wind generation facilities is likely to adversely modify or destroy critical habitat, NMFS should advise the Corps about whether there is a reasonable and prudent alternative available, such as relocation.³³⁹ If no such alternative is available, the Corps would either have to deny the permit or seek an exemption from the ESA if it wants to issue the permit.³⁴⁰

Similar to the take prohibition, the potential offered by the critical habitat provisions to protect marine habitat remains largely untested. While the number of listed marine species is relatively small, the number of those species with designated critical habitat is relatively large, at least as compared with terrestrial species.³⁴¹ Accordingly, protection of critical habitat may provide an important means of protecting some of the more sensitive marine species and habitats.

2. Magnuson-Stevens Fishery Conservation and Management Act

Adopted in 1976, the FCMA was enacted to provide an effective fishery conservation and management regime in federal waters to the 200-mile limit.³⁴² Though the Act ended foreign overfishing in U.S. waters,³⁴³ it was unsuccessful in providing effective conservation of fish and habitat from the ravages of domestic fishing fleets. Consequently, in 1996 the FCMA underwent a major overhaul by Congress to increase its effectiveness as a conservation tool.³⁴⁴

Under the FCMA, eight regional fishery management councils prepare fishery management plans (FMPs) for federal waters within their jurisdiction.³⁴⁵ Those plans, prepared for individual or interrelated fish

^{339. 50} C.F.R. § 402.14(h)(3).

^{340.} Id. § 402.15.

^{341.} Critical habitat has been designated for seventeen (or 54.8%) of the thirty-one listed marine species. See supra notes 334 and 335. By contrast, of the 1,258 listed terrestrial and freshwater species in the United States (as of March 3, 2004), only 450 (or 35.8%) have critical habitat designated. U.S. Fish & Wildlife Serv., General Statistics for Endangered Species, at http://ecos.fws.gov/tess_public/TessStatReport (last visited Apr. 12, 2004).

^{342.} Magnuson Fishery Conservation Act of 1976, Pub. L. No. 94-265, 90 Stat. 331, 336 (1976) (codified as amended at 16 U.S.C. § 1811–12 (2000)). The Act was originally entitled the Fishery Conservation and Management Act of 1976, but was renamed in 1980. American Fisheries Promotion Act, Pub. L. No. 96-561 Title II § 238(a), 94 Stat. 3275, 3287, 3300 (1980).

^{343.} Magnuson-Stevens Fishery Conservation and Management Act. 16 U.S.C. § 1801 (2000).

^{344.} Sustainable Fisheries Act, Pub. L. No. 104-297, 110 Stat. 3559 (1996) (codified as amended in scattered sections of 16 U.S.C.).

^{345.} The eight fishery management councils are New England, Mid-Atlantic, South Atlantic, Caribbean, Gulf of Mexico, Pacific, North Pacific, and Western Pacific. 16 U.S.C. § 1852(a)(1). In addition, the National Marine Fisheries Service manages highly migratory species, including tunas, marlin, sailfish, and sharks, that are within the geographical area of authority of more than one fishery

stocks, provide conservation and management measures necessary to prevent overfishing, rebuild overfished stocks, and "protect, restore, and promote the long-term health and stability of the fishery." The plans also contain measures to minimize bycatch and, where bycatch cannot be avoided, minimize the mortality of bycatch. 347

FMPs may establish time and area closures, where fishing is prohibited or limited to certain size vessels or certain gear types.³⁴⁸ Plans may also limit or require the use of certain types of vessels for fishing.³⁴⁹ These provisions may provide significant protection for marine habitats. For example, bottom trawling, which can be destructive to rock and reef habitats used for spawning or feeding areas, may be prohibited in certain areas.³⁵⁰

FMPs have also been used, though less frequently, to establish fully protected zones, or marine reserves. For example, the Pacific Fishery Management Council (PFMC) has utilized marine reserves in order to address the continuing decline of the groundfish fishery in the region.³⁵¹ The PFMC plan defines marine reserves as "[z]oning that precludes fishing activity on some or all species to protect critical habitat, rebuild stocks (long term, but not necessarily permanent closure), provide insurance against overfishing, or enhance fishery yield."³⁵² The PFMC has established two marine reserves and initiated the process for considering additional reserves in their region.³⁵³ The existing marine reserves cover an area of 4,700 square miles and prohibit fishing for the groundfish species listed under the FMP.³⁵⁴

The South Atlantic Fishery Management Council (SAFMC) has also developed a plan utilizing marine reserves. The SAFMC plan allows for the use of MPAs to prohibit harvest of certain species on either a permanent

management council. *Id.* §§ 1802(20), 1852(a)(3). Highly migratory species are managed according to the same standards applicable to other fish stocks. *Id.* § 1853(a).

^{346.} Id. § 1853(a)(1)(A).

^{347.} Id. § 1853(a)(11). The Act defines bycatch as fish and other marine life caught in a fishery, but "not sold or kept for personal use." Id. § 1802(2).

^{348.} Id. § 1853(b)(2).

^{349.} Id. § 1853(b)(4).

^{350.} Id. § 1853(b)(2).

^{351.} DR. RICHARD PARRISH ET AL., PACIFIC FISHERY MGMT. COUNCIL, MARINE RESERVES TO SUPPLEMENT MANAGEMENT OF WEST COAST GROUNDFISH RESOURCES: PHASE I TECHNICAL ANALYSIS ES-1 (Feb. 2001), available at http://www.pcouncil.org/reserves/recent/phase1analysis.pdf.

^{352.} Pacific Fishery Mgmt. Council, Fishery Management Background: Marine Reserves (citing the National Research Council Ocean Studies Board definition of "fishery reserve"), at http://www.pcouncil.org/reserves/reservesback.html (last modified Apr. 2, 2000).

^{353.} Id.

^{354.} Id.

or temporary basis.³⁵⁵ The plan further provides that the SAFMC may establish MPAs including no-take marine reserves, limited duration closures with no-take allowed, and spawning area closures with no-take allowed.³⁵⁶

The 1996 amendments to the FCMA for the first time provided direct protection for marine habitats through the requirement that fishery management plans "describe and identify essential fish habitat" (EFH), minimize adverse effects on EFH from fishing, and identify other actions to encourage the conservation and enhancement of EFH. 357 Similar to critical habitat under the ESA, EFH is defined as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity."358 Once EFH has been designated, each federal agency must consult with the Secretary of Commerce, acting through the National Marine Fisheries Service, with respect to any action authorized, funded, or undertaken that may adversely affect EFH. 559 Fishery management councils may provide comments on such actions to the Secretary of Commerce and the agency proposing the action.³⁶⁰ If the Secretary determines that an action would adversely affect EFH, the Secretary will recommend measures to conserve EFH to the agency proposing the action. 361 The agency must respond within thirty days, proposing measures to avoid, mitigate, or offset adverse impacts to EFH, or explaining why it will not follow the Secretary's recommendations. 362 Thus, in contrast to critical habitat under the ESA, there is no requirement that federal agencies insure that their actions will

^{355.} S. Atl. Fishery Mgmt. Council, News Release: Council Addresses Proposed Marine Protected Area Sites During June Meeting (June 28, 2001), at http://www.safmc.net/news/fmpro?-db=content&-lay=main&-format=release.html&-recid=32864&-find.

^{356.} S. Atl. Fishery Mgmt. Council, Public Information Document: South Atlantic Fishery Management Council's Development of Marine Protected Areas (Dec. 2001). available at http://www.safmc.net/library/MPApid02.pdf.

^{357.} Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1853(a)(7) (2000). Since the 1996 amendments to the FCMA, fishery management councils have identified EFH for sixty species. Nat'l Oceanic & Atmospheric Admin., Guide to Essential Fish Habitat Descriptions, at http://www.nero.noaa.gov/ro/doc/list.htm (last visited Apr. 12, 2004).

^{358. 16} U.S.C. § 1802(10). Under the FCMA, "fish" includes "finfish, mollusks, crustaceans, and all other forms of marine animal and plant life other than marine mammals and birds." *Id.* § 1802(12).

^{359.} Id. § 1855(b)(2). In the first three years of EFH requirements, the Secretary of Commerce consulted on more than 5,000 federal actions that may have adversely affected EFH. Tanya Dobrzynski, Essential Fish Habitat (EFH) Update: Progress and Available Resources, 22 COASTAL SOC'Y BULL. 1 (2000), available at http://www.nmfs.noaa.gov/habitat/habitatprotection/efhupdateprogress.htm.

^{360. 16} U.S.C. § 1855(b)(3).

^{361.} Id. § 1855(b)(4)(A).

^{362.} Id. § 1855(b)(4)(B).

not harm EFH. Agencies must only consider the recommendations of the Secretary for avoiding or mitigating such harm.

3. Marine Mammal Protection Act

Unlike the ESA and the FCMA, the MMPA, provides more limited authority to protect marine habitat. Like the ESA, the MMPA generally prohibits the take of marine mammals.³⁶³ The term "take" is defined as "harass, hunt, capture, or kill" or attempt to do so to any marine mammal.³⁶⁴ Unlike the ESA, the MMPA does not include "harm" in the definition of take, nor are there any implementing regulations which define take to include habitat destruction.

By prohibiting take of marine mammals, however, and providing the Secretary of Commerce with the regulatory authority to implement this prohibition, the MMPA is a mechanism for *de facto* protection of marine habitats. The Secretary may issue permits for the incidental take of marine mammals in the course of commercial fishing.³⁶⁵ Commercial fisheries are required to reduce incidental marine mammal mortality and serious injury to near zero within a specified period.³⁶⁶ Time and area closures or gear modifications may be necessary to accomplish this.³⁶⁷ Such measures would further protect marine habitats and other marine life.

In addition to this *de facto* authority, direct protection can be provided to certain habitat areas under the MMPA. The MMPA's primary objective is to "maintain the health and stability of the marine ecosystem." Congress vested authority in FWS and NMFS to "prescribe such regulations as are necessary and appropriate" to achieve that end. Under this authority, combined with similar authority in the ESA, FWS has promulgated regulations to establish zones that protect Florida manatees from motorboat collisions. Even if such restrictions are not imposed by regulation, permit restrictions can limit take.

^{363.} Marine Mammal Protection Act, 16 U.S.C. § 1372(a) (2000). The MMPA defines "marine mammal" as any mammal that "is morphologically adapted to the marine environment," such as sea otters, manatees and dugongs, seals and sea lions, whales, dolphins, and porpoises, and also includes mammals that primarily inhabit the marine environment, such as polar bears. *Id.* § 1362(6).

^{364.} Id. § 1362(13).

^{365.} Id. § 1387(a)(1).

^{366.} Id. § 1387(b)(1).

^{367.} Id. § 1387(f)(9)(A)-(B).

^{368.} Id. § 1361(6).

^{369.} Id. § 1382(a).

^{370. 50} C.F.R. §§ 17.100-17.108 (2002).

^{371. 16} U.S.C. §§ 1373-1374.

Other aspects of the MMPA could be used to advance MPA protection. For example, regulations must authorize the incidental taking of marine animals pursuant to noncommercial fishing activities. These regulations must set forth the "means of effecting the least practicable adverse impact on such [marine mammal] species or stock and its habitat." Thus the Secretary could prohibit or restrict activities resulting in incidental take within MPAs that are established to protect marine mammals.

4. Features of Species-Based Protection Relevant to MPAs

Each of the species-based statutes discussed above can provide protection for marine habitats, creating *de facto* marine protected areas. Under the ESA, the prohibition against take of listed species and the delineation of critical habitat can protect marine habitats. Under the MMPA, the prohibition of take of marine mammals may limit activities that adversely affect their habitats as well. In each of these situations, however, the protection of habitat is dependent on the identification of a particular protected species.

In contrast, marine habitat can be protected for its own sake, and for multiple species, through the EFH provisions of the FCMA. However, federal agencies are bound to consider, not implement, protective measures for EFH. Therefore this habitat protection is weaker than the interagency consultation requirement of the ESA, the take prohibitions of the ESA and MMPA, and the ESA's critical habitat provision.

The bottom line is that species-based conservation laws do not provide a fully effective approach to protecting MPAs. Their authority is necessarily limited to the conservation measures necessary for a specific species. Although each law refers to ecosystem-based conservation goals, the action forcing mechanisms available for each purpose are quite limited. The net effect is that, although such laws can be useful in specific contexts, they cannot be relied upon in any general way to enhance MPA protection.

^{372.} Id. § 1371(a)(5)(A).

^{373.} Id. § 1371(a)(5)(A)(ii)(I).

III. EXECUTIVE ORDER 13,158: MARINE PROTECTED AREAS OF THE UNITED STATES

A. The Requirements of Executive Order 13,158

In an effort to help protect natural and cultural resources within the marine environment, Executive Order 13,158 was promulgated to "strengthen the management, protection, and conservation of existing marine protected areas and establish new or expanded MPAs." Furthermore, the order is intended to "develop a scientifically based, comprehensive national system of MPAs representing diverse U.S. marine ecosystems, and the Nation's natural and cultural resources" and to "avoid causing harm to MPAs through federally conducted, approved, or funded activities." To fulfill these objectives, the Departments of the Interior and Commerce (agencies) are charged with beginning a process for developing a national system of MPAs.

The primary action-forcing provisions of the Executive Order are found in sections 3, 4, and 5. Section 3 calls for the establishment, protection, and management of MPAs. Section 4 calls for a national system of MPAs. Section 5 requires federal agencies to avoid harm to the resources protected by those MPAs identified.³⁷⁷ According to section 3, agencies who have authority to establish or manage MPAs shall take actions aimed at providing greater protection to existing MPAs and establishing or recommending new MPAs.³⁷⁸ Under section 4, the agencies involved with establishing and managing MPAs are called upon to take actions to develop a national system of MPAs.³⁷⁹ In developing a national system, agencies are first tasked with managing an MPA website that includes a current list of MPAs and other information to assist government agencies and interested parties as they implement the Executive Order.³⁸⁰ The Order asks agencies to "coordinate and share information, tools, and strategies" as they work toward the common goal of enhancing and

^{374.} Exec. Order No. 13,158, 3 C.F.R. 273, 273-74 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{375.} Id.

^{376.} Id.

^{377.} *Id*.

^{378.} *Id*.

^{379.} *Id*.

^{380.} Id. at 275.

expanding protection of existing MPAs and establishing or recommending new sites for protection.³⁸¹

The agencies have begun an administrative process for creating the list of MPAs called for in the Executive Order. The agencies' first step has been to compile an inventory of marine managed areas (MMAs).³⁸² This MMA inventory represents an "initial pool of sites" that will be considered for inclusion on the MPA list.³⁸³ According to the Executive Order, MPAs are defined as "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein." The order further defines "marine environment" to mean "those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands thereunder, over which the United States exercises jurisdiction, consistent with international law."385 The agencies found this definition too broad to provide criteria or characteristics to determine which sites should be included in the ultimate list of MPAs. 386 Because of this finding, the agencies proposed a list of specific criteria and characteristics that were open to the public for comments and are currently being considered for modification and final publication.387

Executive Order 13,158 also calls on the Department of Commerce (DOC) to develop a "Marine Protected Area Federal Advisory Committee" made up of "non-Federal scientists, resource managers, and other interested persons and organizations" to provide "expert advice and recommendations" in developing a national system of MPAs. The Advisory Committee consists of twenty-six non-federal members appointed by the Secretary of Commerce, in consultation with the Secretary of the Interior. These members represent stakeholder groups such as scientists, resource managers, conservationists, and representatives from interest groups such as fishing, boating, and diving. The Advisory Committee's

^{381.} Id. at 274.

^{382.} Marine Protected Areas and an Inventory of Existing Marine Managed Areas, 68 Fed. Reg. 43, 495 (July 23, 2003).

^{383.} Id.

^{384.} Exec. Order No. 13,158, 3 C.F.R. 273, 274 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{385.} *Id*.

^{386.} Marine Protected Areas and an Inventory of Existing Marine Managed Areas. 68 Fed. Reg. 43,495, 43,496 (July 23, 2003).

^{387.} Id. at 43, 495.

^{388.} Exec, Order No. 13,158, 3 C.F.R. at 275.

^{389.} Nat'l Oceanic & Atmospheric Admin., MPA Federal Advisory Committee Charter, at mpa.gov/fac/about_fac.html (revised Feb. 12, 2004).

^{390.} Id.

advice and recommendations are based on materials and information developed by subcommittees and scientific working groups.

The Executive Order also directs the DOC to establish a "Marine Protected Area Center" to "develop a framework for a national system of MPAs, and to provide Federal, State, territorial, tribal, and local governments with the information, technologies, and strategies to support the system."391 The MPA Center is managed by a small staff within NOAA's Ocean Services office and is supported by the MPA Science Institute and the MPA Training and Technical Assistance Institute.³⁹² In addition to managing the website called for in the Executive Order, the responsibilities of the MPA Center include developing program policies, conducting outreach and education and consulting with federal and state Other responsibilities include working with federal and nonfederal organizations to conduct research, analysis, and exploration.³⁹⁴ The MPA Center provides assessment, policy analysis, education, outreach, training, and technical assistance, while also utilizing the existing network of public and private interests and expertise in carrying out their primary goal of designing and creating a national system of MPAs. 395

Section 4 of the Executive Order charges the EPA with using its Clean Water Act authority to provide better protection to "beaches, coasts, and the marine environment from pollution." The Order specifically calls upon the EPA to propose new science-based regulations toward this end. The Order states that "[s]uch regulations may include the identification of areas that warrant additional pollution protections and the enhancement of marine water quality standards." Sec. 2012.

Rounding out the primary action provisions, section 5 establishes agency responsibilities to "avoid harm" to areas identified by the list of MPAs called for in section 4.³⁹⁹ Under this section, federal agencies must first identify actions that affect the natural or cultural resources protected by an MPA.⁴⁰⁰ Federal agencies taking actions that affect MPAs must then,

^{391.} Exec. Order No. 13,158, 3 C.F.R. at 275.

^{392.} Nat'l Oceanic & Atmospheric Admin., About the MPA Center, at http://mpa.gov/mpa_center/about_mpa_center.html (revised Apr. 7, 2004).

^{393.} *Id*.

^{394.} Exec. Order No. 13,158, 3 C.F.R. at 275.

^{395.} Nat'l Oceanic & Atmospheric Admin., About the MPA Center, at http://www.mpa.gov/mpa_center/about_mpa_center.html (revised Apr. 7, 2004).

^{396.} Exec. Order No. 13,158, 3 C.F.R. at 275-76.

^{397.} Id.

^{398.} Id. at 276.

^{399.} Id.

^{400.} Id.

"[t]o the extent permitted by law and to the maximum extent practicable...avoid harm to the natural and cultural resources that are protected by an MPA."401

By its terms, the harm avoidance requirement in section 5 is applicable now. Contrary to the assertion of Assistant Secretary Watson set forth in the Introduction, the provision is not limited to MPAs actively included on the MPA list.⁴⁰² Instead, section 5 simply provides that "[i]n implementing this section, each Federal agency shall refer" to the MPA list.⁴⁰³ This provision is obviously intended to help guide agency identification of MPAs, but it is not a prerequisite to protective measures (e.g., it does not say "in implementing this section each Federal agency shall comply with this requirement only for those areas identified under subsection 4(d) of this Order"). Thus, federal agencies should be abiding by this provision for all areas that meet the definition of an MPA.

B. Deficiencies of Executive Order 13,158 for MPA Protection

It is too soon to tell whether Executive Order 13,158 will spur the creation of a new system of protected areas as intended. One of the overarching deficiencies of the Order is that it does not create any substantive or procedural right or any benefit "enforceable in law or equity by a party against the United States, its agencies, its officers, or any person." Thus, future administrations could revoke or disregard the actions called for in the Order. Furthermore, the Order does not specify or call for particular appropriations to carry out its requests. Therefore, future administrations could decide not to fund such actions.

The Order is also deficient because the definition of MPAs provided in section 2 is stated in broad terms and fails to provide specific criteria or characteristics to determine which sites should be subject to the protective measures of the Order. The agencies have therefore had to establish criteria and characteristics consistent with this broad definition of MPAs, in order to develop an initial pool of sites known as the MMA inventory. Although the MMA inventory will eventually be used to determine which sites are subject to the protective measures of the Order, sites currently at

^{401.} Id.

^{402.} See supra Introduction.

^{403.} Exec. Order No. 13,158, 3 C.F.R. at 276.

^{404.} Id.

^{405.} See supra note 384 and accompanying text.

^{406.} See supra notes 386-87 and accompanying text.

risk continue to go unprotected because they have not been formally designated as "MPAs that meet the definition of MPA for the purposes of [the] Order." ⁴⁰⁷ Therefore, even though a site may seemingly fall within the broad definition of MPAs provided in section 2, such a site will not be subject to the protective measures of the Order until it has been added to the formal list published by the agencies. This approach has reduced all areas potentially subject to the Order to the lowest common denominator. While there are many areas that clearly should be covered, no priorities are assigned to the listing process. Instead, after listing the covered federal areas, the MPA Center is now methodically considering all other areas together. This process has been exceedingly slow, causing many areas deserving of protection to be ignored while major threats continue to emerge. ⁴⁰⁸

Another definitional problem with the Order is the lack of a specific meaning for "harm" as provided under the agency responsibilities of section 5. As described above, section 5 establishes a duty for the agencies to "avoid harm to the natural and cultural resources that are protected by an MPA." The Order fails to elaborate on what agency actions would breach this duty. Therefore, the implementing agencies will have to establish the meaning of "harm" before action agencies can be held responsible for impacting the resources protected by an MPA.

Finally, the Order is deficient because it lacks a specific mandate for federal or state governments to implement and enforce its protective measures. The Order provides neither a structure for governmental control nor a basis for the scientific resources that are necessary to carry out the protective measures. A related issue is whether federal, state, tribal, local, or a combination of governments should be involved in controlling and enforcing the Order. The current lack of guidance on this issue, and the other deficiencies listed above, have diminished the effectiveness of the Order in carrying out its general goal to "help protect the significant natural and cultural resources within the marine environment for the benefit of present and future generations."

^{407.} Exec. Order No. 13,158, 3 C.F.R. at 275.

^{408.} For example, the CIOS established under Massachusetts law clearly qualifies as an MPA. The proposed energy facility in federal waters will undoubtedly cause significant harm to the CIOS's protected values. Solely because implementation of the Executive Order has not yet caused the CIOS to be included in MPA list, the Corps' section 10 process continues to go forward without application of the harm avoidance directive. See supra Introduction.

^{409.} Exec. Order No. 13,158, 3 C.F.R. at 276.

^{410.} Id. at 273-74.

IV. RECOMMENDATIONS FOR LEGAL AUTHORITIES TO GOVERN MPAS

The MPA concept has great promise. If successfully implemented, it would accomplish two primary objectives of coastal and ocean resources conservation.

First, it would provide a degree of coordination and unified governance for the marine environment. There is no overriding legislation that governs the ocean. Instead, resource-specific laws, such as the MMPA, FCMA, and OCSLA apply. The CZMA, which addresses general management issues, is related to state coastal plans and generally applies only to coastal, not offshore, waters. As a result, the extensive areas within the U.S. Exclusive Economic Zone (EEZ) lack any unifying set of management principles, decisionmaking procedures, or action-forcing requirements.

The principle of establishing and managing a unified national system of MPAs would fill part of this void. It would address the need to view such areas from the perspective of common conservation principles. A system of MPAs would fulfill the management goals of the specific MPAs, whether established under federal, state, local, tribal, or territorial law, and achieve some degree of consistency in defining the actions that are needed to administer a national, coordinated system of such areas.⁴¹¹

The second major benefit of successfully implementing the MPA concept is the addition of a strong tool that focuses on "protection" to the panoply of laws and policies dealing with coastal and ocean management—precisely what the title of this Article urges. With the exception of marine mammals and those relatively few areas that have been designated as marine sanctuaries, there is no mechanism under U.S. law that focuses directly and exclusively on providing protection to marine resources. All of the other laws and policy directives of potential significance to coastal and ocean resources, habitats, and geographic regions focus on general management objectives or resource utilization, or apply to areas protected as non-marine legal resources (i.e., parks, refuges) incidentally located in or near offshore regions. The MPA concept brings to the oceans what has long been applied to land areas—action to set aside areas, through different levels of governmental action, exclusively for protective purposes.

While these general benefits of the MPA concept are sweeping and significant, to date they remain largely illusory. For all of the lip-service that has been paid to the importance of establishing and protecting MPAs,

^{411.} See PEW OCEANS COMM., AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 34 (2003) (recommending the creation of reserves to protect marine habitats and the creation of ocean policy legislation), available at http://www.pewoceans.org/oceans/downloads/oceans_report.pdf.

the fact remains that little has been done to put flesh on the bones of MPA theory. Rather than pursue general implementation of the concept or undertake comprehensive initiatives designed to implement a true MPA program, the focal point of the effort has devolved to isolated (albeit important) and contentious disputes over the marine reserve subset of MPAs and the plodding, ministerial task of establishing a catalogue of areas that fall under Executive Order 13,158. This has occurred without meaningful application of the tools and directives called for by the Clinton/Bush mandate. The remainder of this Article identifies specific actions that should be taken to make MPA conservation and coordination a reality. It focuses on three general areas: (1) implementing Executive Order 13,158; (2) using existing administrative tools; and (3) enacting new legislation.

A. Implementation of Executive Order 13,158

The logical point for jump-starting MPA initiatives is Executive Order 13,158. Having set forth a directive, a rationale, a program, and a "harm avoidance" provision for all federal activities, the Executive Order nonetheless remains essentially a statement of principles that has not found regulatory significance in the real world. While important initiatives are underway through the excellent efforts of the MPA Center and the MPA Committee in the areas of public education, agency coordination, and research and technical studies, virtually nothing is happening to give force and effect to the MPA concept in a legal setting. A priority for getting the MPA effort on track is to dust off the Executive Order and make it an effective part of federal planning, coordination, and decisionmaking. Specific actions in this regard are as follows.

1. Implement the Order Now

As described above, the federal government takes the position that the protections of the Order, in particular the harm avoidance provision, do not apply unless an area has been "formally designated." This position is particularly counterproductive considering the slow pace of formally designating such areas, assuming that means publication on an inventory list prepared by the MPA Center. In fact, as of the date of publication of this Article, only 328 areas have been formally listed in the inventory, and

^{412.} Exec. Order No. 13,158, 3 C.F.R. at 273-76.

^{413.} See supra notes 21-23 and accompanying text.

these are, for the most part, the obvious federal areas which are protected anyway. According to the MPA Center's estimates, more than 1,000 potentially qualified areas will be considered in the inventory. These are the areas that are most seriously in need of protection, yet they must wait for a slow process of formal review before they are included on the MPA list.

Although there may be some areas that qualify as MPAs that are obscure or difficult to identify, for the most part it is obvious which areas qualify. It is clear, for example, that the CIOS is an MPA. The same is true for the other sanctuaries established under state, local, or tribal law. Most areas set aside under state and other law are easy to identify. Any such areas identified during the course of federal decisionmaking should be currently covered by the Order's harm prohibition. Failure to do so will result in depriving these areas of needed protection for many years.

As a result, every federal action which would affect a potential MPA (i.e., one not yet "listed"), should be required to undergo consultation with the MPA Center. That affected area should be screened for inclusion on the MPA list and, if qualified, formally placed on the list and extended protection of the Order. Alternatively, the harm avoidance provision should be applied to that area despite formal listing. As discussed previously, the harm avoidance requirement is not constrained by the MPA list, because the list is a reference source, rather than a limitation on the Order's applicability. In other words, give the area the benefit of the doubt, instead of allowing federal activities to harm it simply because the federal government has not formally listed the location. This practice would avoid adverse impacts to MPAs while the overall list is being prepared.

2. Avoid the Tendency to Over-Designate

As important as it is to develop a meaningful and comprehensive list of inventoried MPAs, it is equally important to the effective functioning of the Order to avoid over-designation. The concept of a defined list of areas that deserve protection based upon their unique value necessarily calls for applying selectivity in the designation process. If every area subject to some kind of resource-related restriction comes under the scope of the

^{414.} Nat'l Oceanic & Atmospheric Admin., Marine Protected Areas of the United States: Status of the Inventory, at http://www.mpa.gov/inventory/status.html (revised Mar. 29, 2004).

^{415.} Id.; CRS REPORT, supra note 35, at 7-8.

Order, a very expansive list would result. 416 This would severely constrain the ability to apply true protection. In other contexts, federal agencies have tended to rely upon maximum designation, resulting in controversy, considerable administrative burden, and the "devaluation" of the significance of the protected area designation. The appropriate starting place is to match the Executive Order definition of the term "MPA" with the six categories defined under the IUCN guidelines. 417 Areas that fall within these categories should be designated. Other areas, such as those designated primarily for the protection of a single species from commercial exploitation, should be analyzed on a case-by-case basis to determine whether the current or required protection rises to the level of MPA status.

3. Clarify the Federal Role

There is controversy and opposition associated with the establishment of a new system of protected areas subject to federal oversight and management. However, the MPA Executive Order does not actually extend federal control or power. Instead, it is intended to ensure that federal actions are consistent with the goals and requirements already in place for existing MPAs established under state, local, tribal, or territorial control. The Order also seeks to support those goals through enhanced coordination, supportive research, and complementary public education.

Through these actions, along with the to-date illusory harm avoidance requirement, the Executive Order gives meaning to a system that already exists. Increased awareness of the relationship between the federal role and the management of nonfederal MPAs would ensure greater support for the MPA program. Effective administration of a national system of MPAs is not a federal power grab. Instead, it calls for a more effective federal role of coordination and support for actions taken by other levels of government.

^{416.} For example, NMFS has developed such a broad designation of "essential fish habitat" under the FCMA that the resulting designation covers all FCMA-regulated waters throughout the U.S. EEZ. A similar problem also occurs in some instances for the designation of critical habitat under the ESA.

^{417.} The six categories include protected areas managed mainly for: (1) science or wilderness protection; (2) ecosystem protection and recreation; (3) conservation of specific natural features; (4) conservation through management intervention; (5) landscape/seascape conservation and recreation; and (6) the sustainable use of natural ecosystems. WORLD COMM'N ON PROTECTED AREAS OF IUCN—THE WORLD CONSERVATION UNION. GUIDELINES FOR MARINE PROTECTED AREAS xviii (Graeme Kellcher ed., 1999) (citing G.A. Res. 17.38, 17th Sess. IUCN (1988)). available at http://www.iucn.org/themes/wcpa/pubs/pdfs/mpa_guidelines.pdf.

4. Develop Guidelines for "Harm"

In terms of legal protection, one of the most important aspects of the Order is the requirement that federal agencies avoid action that would harm MPAs. After nearly four years, this provision appears to be a dead letter. There are no reported instances of it being invoked, and there are no signs that it has become a meaningful component of federal decisionmaking.

If the harm provision is to be taken seriously, it should be implemented immediately. In addition, it needs clear guidance, possibly from the MPA Committee. That guidance should consist of two components: (1) a definition of what constitutes harm; and (2) a process for action agencies to determine whether harm could result and, if so, what actions are needed to avoid it. This process should be an enforceable component of action agency procedures through rulemaking.

An appropriate model for applying the harm avoidance provision is the approach established under section 1a-1 of the NPS Organic Act, as construed by the Leshy Opinion. 419 Under that approach, the initial step would be to identify the values that the affected MPA is intended to protect. The next step is an evaluation of the manner in which the proposed activity, whether occurring inside or outside the MPA, would affect those values. If there is a reasonable likelihood of an adverse effect, either as a result of a direct, indirect, or cumulative impact, then a finding should be made that harm would result. The action agency should then be required to mitigate the adverse impacts of the action, select an alternative that does not cause such effects, or decline to take the action. This requirement should apply not only to actions within MPAs, but also to actions occurring outside MPA boundaries that would harm the protected values. This latter application is particularly important given the limited geographical reach of many MPAs. Many harmful activities are currently prohibited inside such areas, yet the same activities outside the boundary are still a clear threat to resources within MPAs. Indeed, the language of the Executive Order does not limit the harm avoidance requirement to activities occurring solely inside MPAs.

With regard to process, a strong practice should be established of deferring to the governmental agency or entity that has direct management responsibility for the affected MPA to determine whether harm will occur. The principal basis for compliance should be that entity's view as to what constitutes harm and how to avoid it. A consultation procedure should be

^{418.} See supra Part III.A.

^{419.} See supra Part II.C.1.d.

established to solicit the views of that agency, which should control, absent a compelling justification that is supported by an adequate record developed by the federal action agency.

In addition, federal agencies with expertise relevant to the protected resource at issue should be given a significant role in evaluating harm. In most cases, it would be appropriate to defer to the views of NOAA on this point. Other instances of relevant agency expertise include deferring to the EPA and the U.S. Army Corps of Engineers when wetlands are a focal point of the MPA. The same is true of FWS or NMFS for protected species, NPS or the Advisory Council of Historic Preservation for cultural resources, the Bureau of Indian Affairs in the case of tribal resources, and NPS when recreational or aesthetic values are at stake. The point is to ensure that action agencies receive the best substantive advice on how to identify protected values and ensure their conservation.

5. Incorporate the Order into Decisionmaking

Implicit in the Executive Order is the expectation that federal agencies will account for MPA impacts in their decisions on proposed actions. This means that such decisions should ensure that: (1) potentially affected MPAs are identified; (2) impacts are evaluated; (3) measures to avoid or mitigate such impacts are considered and acted upon; (4) and, where appropriate, affirmative protective measures are carried out.

There is little indication that federal agencies are doing anything to consider MPAs in their actions or decisions. The Nantucket Sound project is a perfect example. For such a high-profile, and problematic proposal affecting the ocean environment, the Corps' response that it would consider the MPA issue in due course does not convey a sense that compliance with the Executive Order is regarded as an integral part of federal decisionmaking.

The solution is to formalize MPA impact analysis as an integral component of all federal decisionmaking procedures. An established process should be defined for this purpose. Most federal agencies have regulations, or at least guidelines, that dictate how their decisions will be carried out. To give meaning to the Order, recommended procedures should be developed for agencies to use for this purpose.⁴²¹ The initiative

^{420.} See supra Introduction.

^{421.} An example of such a directive is found in the Clinton Administration's Executive Order for implementation of the Migratory Bird Treaty Act. Exec. Order No. 13.186, 3 C.F.R. 719 (2001). Under this Order, federal agencies taking actions that have an impact on migratory bird populations

for this effort could come from the MPA Committee. The MPA Center, working in concert with the Council for Environmental Quality, should have a strong role in developing the recommended procedures.⁴²²

6. Distinguish MPAs from Marine Reserves

A significant controversy has emerged over MPA conservation initiatives as a result of confusing the term "MPA" with the term "marine reserve." Although there is no legally binding definition of "marine reserve," the concept has become synonymous with "no take" zones established under the FCMA that prohibit all forms of fishing. These reserves are often controversial, as demonstrated by the heated debate over the designation of marine reserves in the waters surrounding the Northern Channel Islands off the coast of California. 424

Unfortunately, the strong opposition to marine reserves has colored the debate over the designation and conservation of MPAs generally. Concerned that MPA designation necessarily equates with, or leads to, "notake" restrictions on fishing or access, some fishing industry representatives

must implement a Memorandum of Understanding (MOU) with the Fish and Wildlife Service. *Id.* at 720. The Order goes on to provide specific guidance regarding federal agency responsibilities in carrying out the MOU in a manner that best promotes the conservation of migratory bird populations.

^{422.} In addition, there is room for MPA impact analysis in the NEPA guidance maintained by most federal agencies. Such guidance should be revised to incorporate specific consideration of MPAs. For example, in their environmental review procedures for implementing NEPA, NOAA has provided guidance regarding the protection of coral reef ecosystems. This guidance requires decision makers to integrate the directive of Executive Order 13,089 by identifying actions that may affect coral reef ecosystems. NAT'l. Oceanic & Atmospheric Admin., Administrative Order Series 216-6: Environmental Review Procedures for Implementing the National Environmental Policy Act § 7.04 (May 20, 1999), available at http://www.nepa.noaa.gov/NAO216 6 TOC.pdf.

^{423.} For example, one fishery management plan developed by the Pacific Fishery Management Council defines marine reserves as "[z]oning that precludes fishing activity on some or all species to protect critical habitat, rebuild stocks (long term, but not necessarily permanent closure), provide insurance against overfishing, or enhance fishery yield." Pac. Fishery Mgmt. Council, Fishery Management Background: Marine Reserves, at http://www.pcouncil.org/reserves/reservesback.html (last updated April 2, 2004) (citing the Nat'l Research Council Ocean Studies Board definition of "fishery reserve").

^{424.} Upon receiving a recommendation to establish marine reserves in the waters surrounding the Channel Islands, the California Fish and Game Commission initiated a process to consider the recommendation. This process included multiple opportunities for public involvement. The decision to create marine reserves was met by strong opposition from stakeholder groups. Despite this opposition, nineteen percent of state waters surrounding the Sanctuary were set aside as a no-take marine reserve, ultimately resulting in the designation of eleven marine reserves and two conservation areas. See Ken Weiss, Historic Vote Results in Giant Marine Reserve for Channel Islands. L.A. TIMES, Oct. 24, 2002 (explaining the debate and controversy surrounding the closure of 175 square miles of ocean around the channel islands to fishing), available at http://www.californiafish.org/channelreserve_vote.html.

have launched a general campaign against MPAs. The concerns underlying this attack should be relatively easy to refute. The MPA Center and the President's MPA Committee should issue clear guidance that distinguishes these concepts. It should be clarified that there is nothing about MPA status that necessarily results in "no-take" restrictions. Furthermore, the MPA Center should explain that the majority of MPAs will not be marine reserves under the FCMA. It is likely that there will be a narrow set of circumstances where non-marine reserve MPAs would require "no-take" type restrictions. The Center should issue guidelines setting forth this information and facilitating implementation of the Executive Order.

Once this is done, the MPA Center should launch an extensive public education effort directed primarily at the rank-and-file members of sportfishing organizations. Once their concerns over unbridled "no-take" limitations are dispelled, the members of fishing organizations should be strong supporters of MPAs because of the role they will play in promoting the growth of fish stocks and, in many cases, recreational values.

7. Utilize the Concept of MPA "Zoning"

Even within individual MPAs, uniform protection provisions may not be appropriate. Some MPAs are extensive in size, with specific resources and values in different locations that call for varying levels of protection.

An excellent example of this approach is found in the Florida Keys National Marine Sanctuary (FKNMS). 426 Following an extensive public involvement process, an innovative and effective zoning system is now in place. 427 Once designated, a process was initiated to provide greater protection to the marine resources within the sanctuary. 428 By developing a

^{425.} For example, the American Sportfishing Association (a sportfishing industry trade association representing 550 members) generally opposes MPAs that restrict recreational fishing "without scientific evidence on the effect of recreational angling." Am. Sportfishing Ass'n, Government Affairs—Issues: No Fishing Zones, at http://www.asafishing.org/content/govtaffairs/gais_nfz.cfm (last visited Apr. 11, 2004); Am. Sportfishing Ass'n, Your ASA, at http://www.asafishing.org/content/membership/ (last visited Apr. 11, 2004) (stating that the organization boasts 550 members). Likewise, the Recreational Fishing Alliance (a national, grassroots political action organization representing individual sport fishermen and the sport fishing industry) has stated that MPAs are a threat because they "may preclude all recreational fishing." Recreational Fishing Alliance. RFA Position Paper Draft: Marine Protected Areas (MPAs), at http://www.savefish.com/mpaprop.html (last visited Apr. 11, 2004).

^{426.} Nat'l Marine Sanctuaries, Nat'l Oceanic & Atmospheric Admin., Florida Keys: Managing the Sanctuary, *at* http://sanctuaries.noaa.gov/oms/omsflorida/omsfloridamanag.html (revised July 29, 2000).

^{427.} Id.

^{428.} Id.

sanctuary-specific management plan, the sanctuary managers focused on establishing sanctuary-wide regulations with a system of marine zoning. ⁴²⁹ In addition to the management areas established under the NMSA, the management plan provides for the establishment of additional zones consisting of wildlife management areas, ecological reserves, sanctuary preservation areas, and special use areas. ⁴³⁰ These zones are designated and managed according to criteria and standards set for each individual zone. ⁴³¹

A flexible approach to providing the appropriate level of protection to the specific areas within individual MPAs should greatly facilitate the overall program. It would result in focused application of regulatory measures and avoid over regulation by governing entire MPAs based on the most restrictive needs of a particular resource. Additionally, it may help lessen cost and administrative burden by directing regulatory effort and legal protection to the areas where it is most needed. Such a focused and refined approach to MPA conservation could also help reduce the controversy associated with designation and protection efforts.⁴³²

To facilitate this approach, the MPA Center and the Committee should develop guidelines for such zoning in an effort to implement the Executive Order. The Center and Committee could recommend principles for zoning types that are most useful for specific resource values. Similar principles could be developed to identify what kind of MPAs would generally benefit from zoning, as well as which procedures work best for implementing a zoning approach. Finally, the Center and Committee could identify those areas subject to the Executive Order that would lend themselves to a zoning approach and then cooperate with the relevant management agency to proceed with implementation.

The concept of systematic zoning for MPA conservation is one that has been used effectively in the international context. For example, the IUCN, in its publication entitled *Guidelines for Marine Protected Areas*, provides a model for zoning designed to be used in the context of "large . . . MPA[s]

^{429.} Id.

^{430.} Florida Keys National Marine Sanctuary and Protection Act, Pub. L. No. 101-605, § 7(a)(1)-(2), 104 Stat. 3089, 3092-93 (1990).

^{431.} *Id*.

^{432.} This was the case in the Florida Keys, where the use of a flexible approach, combined with effective federal management and public involvement, ultimately resulted in widespread support. Nat'l Oceanic & Atmospheric Admin.. Florida's Tortugas Becomes Nation's Largest Marine Reserve, at http://www.fknms.nos.noaa.gov/news/press_release/tortugaser.html (last visited Apr. 11, 2004).

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^{431.} *la*

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with substantial government involvement."⁴³³ The foremost example of a zoning system that has been successfully applied in the context of a large, nationally significant MPA is the Great Barrier Reef Marine Park off the coast of Australia.⁴³⁴ In managing this marine park, a system of zoning is utilized to separate conflicting uses and apply varying degrees of protection depending on the threat specific to each zone.⁴³⁵ The United States could benefit from taking a careful look at these models.

It is worth noting that the concept of zoning is somewhat at odds with the marine environment. In the land use context, zoning is used to bring activities into conformity with a defined plan, which often requires individual landowners to yield their right to freely develop. Zoning therefore becomes an enforcement mechanism that can often lead to conflict between private uses and public goals. In the marine environment, the offshore areas are either owned or controlled by a governmental entity. They are held in public trust and can be made available for private use only under limited circumstances (e.g., leases issued under the OCSLA). As a result, zoning in the traditional sense does not apply. The use of the term almost inevitably attracts negative responses, and is possibly misplaced and unnecessary.

In reality, what is called for is a planning process that results in a range of protective measures and restrictions based on the area involved and resources to be protected. A variety of terms or concepts can be used to describe the process, other than the word "zoning." The term ultimately adopted may have as much to do with public perception as the resulting legal prescriptions or guidelines. Whatever term is used, the ultimate goals are the same: to adopt a comprehensive approach, both within specific MPAs and across broader areas; and to identifying specific resource conservation and management objectives, so that appropriate management measures can be developed and implemented.

8. Public Involvement Guidance

Almost any action that confers protected status on a specific location carries with it some level of controversy, especially if private rights and activities are affected. In addition, as discussed in the preceding section,

^{433.} WORLD COMM'N ON PROTECTED AREAS OF IUCN—THE WORLD CONSERVATION UNION, GUIDELINES FOR MARINE PROTECTED AREAS 51-53, 89-96 (Graeme Kelleher ed., 1999), available at http://www.iucn.org/themes/wcpa/pubs/pdfs/mpa_guidelines.pdf.

^{434.} Great Barrier Reef Marine Park Act, 1975, c. 85 (Austl.).

^{435.} Id. § 32.

new requirements in some areas may be necessary or desirable for application within existing areas to more effectively meet management goals.

Without question, the process that is used to involve affected parties and the public in designating new MPAs or establishing management standards for existing ones is critical to its success. When the decisionmaking process is responsive to the impacted constituencies and effectively disseminates information, the quality of the resulting action can only be improved and, quite possibly, the level of opposition and potential for conflict can be greatly reduced.

The establishment of the sanctuary zoning system in the Florida Keys is a good example of an effective and successful process. In developing that zoning system, the FKNMS created an "ecological reserves" zone that subjected certain areas to "conditions and prohibitions, including public use restrictions." In locating ecological reserves, sanctuary managers initially encountered strong opposition from user groups who argued that "no-take" zones were too restrictive on their use of such areas. 437

As a result of this opposition, the designation of an area now known as the Tortugas Ecological Reserve was halted because of public comments suggesting that the reserve would "cause serious economic harm to commercial fishermen," and that the proposed boundaries failed to include the most significant resources. The address the concerns of the opposition, sanctuary managers established a twenty-five member working group to draft boundaries for the reserve. This working group was created pursuant to the sanctuary management plan requirement to follow a collaborative effort by stakeholders. In order to provide this collaborative effort, the working group consisted of "commercial and recreational fishers, divers, conservationists, scientists, concerned citizens, and government agencies." By collecting sociological information from

^{436. 1} NAT'L OCEANIC & ATMOSPHERIC ADMIN., FLORIDA KEYS NATIONAL MARINE SANCTUARY: FINAL MANAGEMENT PLAN/ ENVIRONMENTAL IMPACT STATEMENT 260 (1996), available at http://www.fknms.nos.noaa.gov/regs/fmp1.pdf (last visited Apr. 12, 2004).

^{437.} See Nat'l Marine Sanctuaries, Nat'l Oceanic & Atmospheric Admin., Florida Keys: Managing the Sanctuary, at http://www.sanctuaries.noaa.gov/oms/lorida/omsfloridamanag.html (revised July 29, 2000) (providing information on the decisionmaking process).

^{438.} NAT'L OCEANIC & ATMOSPHERIC ADMIN., EXECUTIVE SUMMARY: TORTUGAS ECOLOGICAL RESERVE: FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT/FINAL SUPPLEMENTAL MANAGEMENT PLAN 2 (2000), available at http://floridakeys.nos.noaa.gov/regs/FSE1Ssum.pdf.

^{439.} Id. at 3.

^{440.} Id. at 2.

^{441.} Id. at 3.

the experiences of user groups and holding "public scoping meetings," the working group was able to design an ecological reserve that satisfied the interests of the stakeholders involved. 442

The lessons learned from successful (Florida Keys) and controversial (Channel Islands) MPA management experiences should serve as the basis for moving forward. Effective implementation of the Executive Order and the development of legal tools to manage the nationwide system, as well as individual areas, will require extensive public involvement. As with the development of zoning standards, it would be useful for the MPA Center to recommend guidelines for incorporating effective public participation into the MPA designation process. Such principles would find their greatest potential for application and assistance if developed under the auspices of the Executive Order.

9. Enhance Protection of Existing MPAs as the Priority Effort

The national system of MPAs envisioned by the Executive Order is diverse and extensive in scope. As many as 1,000 "marine managed areas" exist, from which the list of MPAs will be drawn.⁴⁴³

Coordinating this system of MPAs and giving full protection to its component parts is a challenging task. Little has been done to date to apply legal protection to these areas, and considerable work lies ahead to carry out the various coordination functions and research efforts that are needed to support existing areas. The focal point of Executive Order implementation efforts should be on ensuring full protection to these existing areas, rather than providing for any significant expansion or creation of new MPAs, except where a clear need exists. It may be the case that situations will arise where new MPAs need to be created, but those situations will be well-focused and can be responded to as the need arises. In the meantime, far more "bang" for the "conservation buck" will be derived from providing meaningful protection to the many MPAs already in existence.

^{442.} Id.

^{443.} See Nat'l Oceanic & Atmospheric Admin., The National Marine Protected Areas Initiative: National Inventory of Marine Managed Areas for the United States of America, at http://mpa.gov/information_tools/pdf/Factsheets/nationalinventory.pdf (last visited Apr. 11, 2004) (explaining that "the initial phase of the [MPA] listing task is the development of a national inventory of marine managed areas (MMAs) from which the list of MPAs will be selected").

B. Rely Upon Existing Tools

1. Designating New MPAs

As discussed above, the focal point of MPA protection should be placed upon administering the existing system. A vast number of MPAs already exist, and applying adequate protection to them will result in significant conservation benefits. Nevertheless, situations are likely to arise where it may be necessary or desirable to establish new MPAs, and the Executive Order contemplates such action in section 3.444

There is no single source of authority for the designation of MPAs. While there is a need to create power for MPA designation by an administrative act in new oceans legislation, 445 in the interim there are a number of ways to establish such areas under existing law. These powers are as follows.

a. Act of Congress

It is, of course, possible to establish new MPAs by legislation. Congress can create any kind of new MPA, whether as a national marine sanctuary, 446 a national wildlife refuge, 447 a national park, 448 or some other designation. Such designations are difficult to achieve because they require a high degree of political consensus.

b. National Monument Designation

The President can establish MPAs under the Antiquities Act of 1906 by declaring national monuments. In general, the Antiquities Act authorizes the President to declare that special historical or scientific objects, which are located in areas controlled or owned by the U.S. government, are national monuments. The Act further authorizes the President to reserve parcels of land related to the care and management of the object being

^{444.} Exec. Order No. 13,158, 3 C.F.R. 273, 274 (2001), reprinted in 16 U.S.C. § 1431 (2000).

^{445.} See infra Part IV.C.

^{446.} See supra Part II.B.1.

^{447.} See supra Part II.C.2.

^{448.} See supra Part II.C.1.

^{449.} See, e.g., supra Part II.C.3. (describing Wilderness Area designation).

^{450.} Antiquities Act of 1906, 16 U.S.C. § 431 (2000).

^{451.} Id.

protected.⁴⁵² In declaring an object a national monument, certain protections can be put in place to conserve and manage the object and the surrounding area. Currently, "122 national monuments covering approximately seventy million acres of land" have been designated under the Antiquities Act.⁴⁵³

Although national monuments have traditionally failed to include significant areas of submerged lands, the Office of Legal Counsel (OLC) in the Department of Justice has determined that national monuments may include submerged lands controlled or owned by the United States. 454 According to the OLC, national monuments may include submerged lands extending twelve miles seaward within the territorial sea, as well as areas encompassed in the two-hundred nautical mile boundary of the EEZ of the United States. 455

The President's national monument authority under the Antiquities Act represents a mechanism that has been, and should continue to be, used to provide protection for special marine areas. Of the twenty-two new or expanded national monuments proclaimed by President Clinton, three monuments include significant coastal and marine components. For example, the Virgin Islands Coastal Reef National Monument and the expansion of the Buck Island Reef National Monument consist entirely of submerged lands totaling more than 30,000 acres. Another example is the California Coastal National Monument consisting of all unappropriated or unreserved . . . islands, rocks, exposed reefs, and pinnacles above mean

^{452.} Id.

^{453.} Mark Squillace, The Monumental Legacy of the Antiquities Act of 1906, 37 GA. L. REV. 473, 488 (2003).

^{454.} Memorandum from Randolph D. Moss, Assistant Attorney General, U.S. Department of Justice, to John Leshy, Solicitor, Department of the Interior, James Dorskind, General Counsel, National Oceanic and Atmospheric Administration, and Dinah Bear, General Counsel, Council on Environmental Quality 2–9 (Sept. 15, 2000), available at http://www.atlantisforce.org/doj1.html.

^{455.} Id.

^{456.} See Jeff Brax, Zoning the Oceans: Using the National Marine Sanctuaries Act and the Antiquities Act to Establish Marine Protection Areas and Marine Reserves in America, 29 ECOLOGY L.Q. 71, 75 (2002) (arguing for an "increased application of the Antiquities Act to the marine environment").

^{457.} See Squillace, supra note 453 at 473-74 (stating that President Clinton proclaimed twenty-two national monuments during his presidency).

^{458.} See Proclamation No. 7399, 3 C.F.R. 32 (2002) (establishing the Virgin Islands Coral Reef National Monument); Proclamation No. 7392, 3 C.F.R. 3 (2002) (expanding the Buck Island Reef National Monument).

high tide within 12 nautical miles of the ... entire 840 mile Pacific coastline." 459

Despite the appearance of being a simple mechanism for providing protection to special historic and scientific areas, the use of national monument authority has proven to be a complicated and often controversial process. It has been criticized for allowing the President to declare areas as national monuments without conferring with interested members of the public or local government officials. As a result of this criticism, recent national monument proclamations have followed a review process involving local government officials, members of Congress, and interested citizens. In order for national monuments to remain a useful tool in providing lasting protection to special marine areas, this consensus building review process should continue.

c. Executive Orders 13,178 and 13,196

Presidential Executive Orders provide another potential legal mechanism for establishing and protecting MPAs. For example, President Clinton issued Executive Orders 13,178 and 13,196 directing various agencies to work collectively in creating the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve (NWHI Reserve). Executive Order 13,178, as modified by Executive Order 13,196, establishes the general framework for managing the NWHI Reserve. According to the Orders, this reserve was designed to achieve the "long-term conservation and protection of the coral reef ecosystem and related marine resources and species of the Northwestern Hawaiian Islands in their natural character."

The use of an Executive Order to create MPAs represents a novel use of such authority. In issuing the NWHI Reserve Orders, President Clinton based his authority on the executive's plenary powers found in the U.S. Constitution, 464 the National Marine Sanctuaries Act, 465 and the National Marine Sanctuaries Amendments Act of 2000. 466 President Clinton also

^{459.} See Proclamation No. 7264, 3 C.F.R. 5 (2001) (establishing the California Coastal National Monument).

^{460.} Squillace, supra note 453, at 539.

^{461.} Id. at 540.

^{462.} See supra note 120 and accompanying text.

^{463.} Exec. Order No. 13,178, 3 C.F.R. 312, 313 (2001), reprinted as amended in 16 U.S.C.A. § 6401 (2003).

^{464.} U.S. CONST. art. II, §§ 1-3.

^{465.} National Marine Sanctuaries Act, 16 U.S.C. §§ 1431-1445c-1 (2000).

^{466.} National Marine Sanctuaries Amendments Act of 2000, Pub. L. No. 106-513, 114 Stat. 2381 (2000).

claimed the objectives of these Orders were consistent with the purposes stated by various statutes related to the protection and conservation of natural resources.⁴⁶⁷

The protective measures of the NWHI Reserve Orders include the adoption of conservation measures that restrict some activities throughout the reserve. For example, the Executive Orders call for a cap on commercial fishing permits and recreational fishing take limits within the NWHI Reserve. Certain extractive activities are also prohibited, such as those relating to oil and gas development, altering the sea bed, or removing or injuring any material or species. The Orders also require certain areas be designated as Reserve Protection Areas (RPAs). Other consumptive or extractive uses are restricted. Among the restricted activities in such areas are "[c]ommercial and recreational fishing," "touching or taking of living or dead coral," and "[d]ischarging or depositing any material except cooling water or engine exhaust."

Consistent with the requirements in the Executive Orders, the National Ocean Service (NOS) at NOAA has initiated the process for formal sanctuary designation. Upon being declared an "Active Candidate for Sanctuary designation," the NOS follows the process established by the NMSA for sanctuary designation. Upon adoption of a Final Sanctuary Management Plan, the framework for managing the NWHI Reserve will be replaced and the area will be considered a National Marine Sanctuary.

d. Designations Under Resource-Specific Laws

As discussed throughout Part II, there are a number of legal authorities that can be used to set aside areas for specific purposes. Many of these

^{467.} See Exec. Order No. 13,178, 3 C.F.R. 312 (2001), reprinted as amended in 16 U.S.C.A. § 6401 (2004) (citing the National Marine Sanctuaries Act, 16 U.S.C. §§ 1431–1445c-1 (2000), the National Marine Sanctuaries Amendments Act of 2000, Pub. L. No. 106-513, 114 Stat. 2381 (2000), the Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. §§ 1801–1883 (2000), the Coastal Zone Management Act, 16 U.S.C. §§ 1451–1465 (2000), the Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2000), the Marine Mammal Protection Act, 16 U.S.C. §§ 1362–1421h (2000), the Clean Water Act, 33 U.S.C. §§ 1251–1387 (2000), the National Historic Preservation Act of 1966, 16 U.S.C. § 470 (2000), and the National Wildlife Refuge System Administration Act, 16 U.S.C. §§ 668dd–668ec (2000)).

^{468.} Id. at 316-17.

^{469.} Id. at 317.

^{470.} Id.

^{471.} Id. at 319.

^{472.} NAT'L OCEANIC & ATMOSPHERIC ADMIN., NORTHWESTERN HAWAIIAN ISLANDS CORAL REEF ECOSYSTEM RESERVE DRAFT RESERVE OPERATIONS PLAN 94 (2002), available at http://hawaiireef.noaa.gov/PDFs/NWHIROP.pdf.

areas qualify as MPAs, including: national estuarine reserves under the CZMA;⁴⁷³ estuarine areas designated under the National Estuary Program in the CWA;⁴⁷⁴ special ocean sites in the CWA;⁴⁷⁵ protected areas set aside from oil and gas activity under the OCSLA;⁴⁷⁶ and fishery reserves under the FCMA.⁴⁷⁷ In certain circumstances, areas established to protect marine wildlife or habitat under the ESA and MMPA could also rise to MPA status.⁴⁷⁸

While this hodge-podge of legal authorities is available at the federal level to create MPAs, none of these mechanisms are directed specifically at the task contemplated by Executive Order 13,158. What is required is a true source of MPA designation power, one that is dedicated specifically to this task and equipped with the action-forcing tools needed to allow agency officials to create MPAs when needed. Such power must originate from Congress, and, as discussed in the next section, could find its home in the kind of national oceans policy legislation called for by the Pew Commission Report.⁴⁷⁹

2. Use of Administrative Authority for Regulatory Measures

There are many ways that federal agencies can implement effective protections for MPAs. These measures can be imposed through both substantive and procedural standards. The mechanism for doing so is through the rulemaking authority vested in each agency under statutes they administer that confer power applicable to the marine environment. Agencies also can take such actions under their inherent power to establish internal guidelines and procedures.

As noted in the previous section, there are several aspects of Executive Order 13,158 that should be adopted by the agencies whose activities involve the oceans. The principal objective of such action is to make key elements of the Executive Order binding and enforceable. One of the principal weaknesses of the Executive Order is that it is not enforceable by third parties. For example, the harm avoidance requirement of section 5

^{473.} See supra Part II.B.2.

^{474.} See supra Part II.B.3.

^{475.} See supra Part II.B.3.

^{476.} See supra Part II.B.4.

^{477.} See supra Part II.D.2

^{478.} See supra Parts II.D.1 and II.D.3.

^{479.} PEW OCEANS COMM'N, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 34 (2003), available at http://www.pewoceans.org/oceans/downloads/oceans_report.pdf.

cannot serve as the basis for litigation because it is not set forth by statute or regulation.

If the executive branch leadership is serious about MPA protection, it should systematically incorporate key aspects of the Executive Order into the rules governing the actions of each agency. For example, every agency that undertakes activities affecting the marine environment should amend its rules to incorporate the harm provision, establish affirmative duties to protect MPAs, and create procedures that will guide decision making to give adequate consideration to MPA protection initiatives.

Most of the federal agencies involved in activities that affect the marine environment have rule-making power. For instance, under section 3 of the Organic Act, the National Park Service has power to promulgate rules necessary to carry out the functions of the National Park System. It could, therefore, impose specific standards that would prohibit activities that harm resources within NPS administered areas that qualify as MPAs.

As noted previously, wildlife authorities can promulgate rules for this purpose as well. A specific example is the manner in which manatee protection zones have been established under the joint authority of the ESA and the MMPA. Beautiful authority of the ESA and the MMPA.

Another example is found in the OCSLA. Under the statute itself, the Minerals Management Service (MMS) can set aside certain areas that would not be subject to oil and gas activity. In addition, MMS has broad rulemaking authority under the OCSLA. Pursuant to that authority, MMS has already promulgated extensive regulations, many of which are directed at marine ecosystem protection. Additional regulations could be established for the purpose of ensuring adequate protection for MPAs.

Returning to the situation described at the outset of this Article, if the Corps of Engineers now intends to allow section 10 of the Rivers and Harbors Act (RHA) to be used to approve activities as potentially destructive to the marine environment as large-scale energy plants, then its regulations should expressly provide protection for that purpose. Under the

^{480.} National Park Service Organic Act, 16 U.S.C. § 3 (2000).

^{481.} See supra Part II.D.3 for a discussion of the MMPA.

^{482. 50} C.F.R.§ 17.10-17.108 (2002).

^{483.} Outer Continental Shelf Lands Act, 43 U.S.C. § 1344 (2000).

^{484.} Id. § 1344(f)(1).

^{485.} Id. § 1334(a).

^{486.} See, e.g., 30 C.F.R. §§ 250.172 (2003) (providing for operations to be suspended to prevent environmental damage), 250.181 (providing for leases to be cancelled to prevent environmental damages), 250.182 (providing for exploration to be suspended to prevent environmental damage).

RHA, the Corps has the authority to promulgate regulations.⁴⁸⁷ Its section 10 regulations already contain provisions requiring that protected values be taken into account.⁴⁸⁸ In fact, no section 10 permit may be issued unless it passes a public interest test that considers numerous environmental factors.⁴⁸⁹ Under its rulemaking authority, the Corps could amend these regulations to require specific consideration of MPA values in making a permit decision, or even go so far as to provide that no permit would be issued for a facility or structure that would harm an MPA.

These are just a few examples of the many ways that MPA protection could be incorporated directly into the regulations that govern agency actions. Numerous other sources of authority exist under which agencies could make MPA protection a mandatory and enforceable element of their programs.

The starting place for taking this step would be to conduct a complete analysis of the various legal authorities under which agencies undertake actions that affect the marine environment. Each such authority should then be reviewed to determine the extent to which it allows the implementing agency to establish regulations, or take other actions, to protect MPAs. The manner in which such authority can be exercised to protect MPAs can then be determined and undertaken as appropriate. The end result would fill the void in the Executive Order—binding standards to protect MPAs that can be used as clear guidance for agency action and, where necessary, for third parties to enforce against federal agencies and, in some cases, against parties undertaking activities harmful to MPAs.

C. Enact Overarching Legislation

Another means of strengthening management of MPAs would be to enact overarching legislation for the creation and management of a national system of MPAs. Such legislation could draw on the strengths of existing legal authorities, while also addressing some of the weaknesses in those authorities. The need for federal legislation that would define a comprehensive management regime for the oceans is one of the principle recommendations of the Pew Commission report. The law called for in that report, entitled the National Ocean Policy Act, would apply generally to

^{487.} Rivers and Harbors Act of 1894, 33 U.S.C. § 1 (2000).

^{488. 33} C.F.R. §§ 320.1, 320.4(a) (2003).

^{489.} Id. § 320.4(a).

^{490.} Similar initiatives could be undertaken at the state and local levels, based upon the extent of power conferred upon agencies to undertake rulemaking actions.

ocean management issues; MPA designation and conservation would only be one element of the legislation. 491

Enactment of national oceans legislation is certainly a desirable endeavor. Unfortunately, such a sweeping law is an optimistic goal in the current congressional climate, where passage of any significant environmental legislation is a tall order.

If such a bill becomes a realistic possibility, a separate title should be included for MPAs. This part of the bill could legislate many of the elements of Executive Order 13,158. Particularly important is the creation of "organic" principles to guide MPA conservation efforts, similar to what now exist for the National Park and National Wildlife Refuge systems. Other key elements of such a law should be enactment of an enforceable harm avoidance requirement that is applicable to all federal agencies, and a mandatory consultation process that would ensure that the protected values for MPAs are identified and taken into account during decisionmaking.

In addition, federal MPA legislation should address the question of establishing new areas. If Congress determines that new federal MPAs are needed, it could establish such areas. The law could also extend a degree of federal protection to MPAs established under state, local, territorial, or tribal law. Finally, a procedure could be established for creating new MPAs, either administratively by NOAA or by a process similar to that used for national marine sanctuaries.⁴⁹²

Even if a comprehensive ocean management law is not enacted, Congress should consider enacting separate legislation dealing solely with MPAs. The Wilderness Act provides a useful model for national MPA legislation. MPAs, like wilderness areas, are managed by a variety of federal agencies. Thus, as with the Wilderness Act, a National Marine Protected Area System Act would establish the common characteristics of an MPA and the uniform standards for managing them, regardless of which agency has jurisdiction over the MPA. Unlike the Wilderness Act,

^{491.} PEW OCEANS COMM'N, AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 33-34 (2003), available at http://pewoceans.org/oceans/downloads/oceans_report.pdf. This overarching legislation recommended by the Pew Oceans Commission calls for a unified set of general principles and standards for ocean governance while improving coordination between government agencies and other stakeholders. *Id.* The Commission further recommends that the main objective of this legislation be the protection, maintenance and restoration of the health of marine ecosystems. *Id.*

^{492.} It may be possible to apply the Antiquities Act, used to establish national monuments by action of the President, as a basis for creating new MPAs on offshore lands under federal law. See 16 U.S.C. § 431 (2000) ("The President... is authorized... to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government... to be national monuments.").

however, and more like the National Marine Sanctuary system, a National Marine Protected Area System Act should recognize a diversity of areas and levels of protection for MPAs. For example, one MPA might be established to protect spawning habitat for reef fish, requiring fishing restrictions during spawning aggregations. Another MPA might be established as ocean wilderness, restricting all consumptive uses. Yet another might be established to protect unique geological or archaeological features, allowing non-destructive types of fishing to occur. All, however, could be part of a National Marine Protected Area System.

Like the National Wildlife Refuge System, the legislation could require that uses of an MPA be compatible with the purposes for which the MPA was established. Compatibility determinations would be made by the agency managing the MPA, subject to public notice and comment. For activities within or outside an MPA that might adversely affect it, a consultation requirement, similar to those under the ESA and the EFH provisions of the FCMA, should be included. The rigidity of consultation could vary depending on the level of protection accorded the MPA and the severity of the impacts. To be meaningful, however, there should be a requirement that federal agencies implement some measures to mitigate adverse impacts which their activities produce. The legislation should establish a harm avoidance requirement applicable to all federal agencies, possibly using section 1a-1 of the NPS Organic Act as a model.

Finally, a National Marine Protected Area System Act should serve as a coordinating mechanism for other legal authorities that govern MPAs. For example, the species protection provisions of the ESA and MMPA should continue to apply within MPAs, but compliance with those laws should be managed in a coordinated manner designed to eliminate unnecessary duplication and delay. Codifying provisions of Executive Order 13,158 could provide the necessary coordination.

CONCLUSION

The roots of the MPA concept are deeply embedded in U.S. conservation law. Established in 1903, the first national Wildlife Refuge, Florida's Pelican Island, is now an MPA. Similarly, one of the earliest national monuments, Alaska's Glacier Bay, was established to protect its marine resource values and is also an MPA. As these examples demonstrate, setting aside and protecting areas associated with the marine environment has long been a central element of federal conservation initiatives.

Despite these deep roots, one hundred years after the establishment of the Pelican Island Refuge, there is still no comprehensive legal system in place to unify the protection of MPAs and provide them with comprehensive and coordinated protection. The need to do so is stronger than ever, and has been formally recognized through a growing body of scientific literature, policy reports, and administrative pronouncements. What is needed now is the development of a legal system that can live up to the challenges of this critically important and long overlooked conservation mission. Most of the pieces for doing so are in place or readily available, but a strong guiding hand is needed to put binding legal requirements and mechanisms into action. Until this is done, the national system of MPAs will exist as a policy without maximum force and a conservation initiative of great promise left unfulfilled.

February 13, 2005



Colonel Thomas Koning U.S. Army Corps of Engineers 696 Virginia Rd. Concord, MA. 01742

Dear Colonel Koning:

THE CART BEFORE THE HORSE!!!!!

Before we debate the construction of any wind farms any place on land or water in the United States, we should have a comprehensive master plan with rules and regulations governing the use of private projects on government land as we do regarding oil, gas and coal. After the rules are in place, and if a site meets the criteria, then this area should be leased or sold, **not given away** to the private sector.

The criteria for projects of this nature require unique expertise, and though the Army Corps of Engineering is very good at what they do, the unique problems and socioeconomic issues of "wind farms" extends beyond this expertise. The whole issue must be studied by many departments, The Corp being one of them at both the State and Federal level. Because of the Corp's lack of expertise on the issue, the Corp is relying on information supplied by Cape Wind. A very dangerous precedent. The information is usually bias and sides with the one paying the bill. We always see this happen with expert witnesses in court cases. Why didn't the Corp obtain it's own outside research??? When the Corp gave approval to construct a test tower, why wasn't it a replica of one of the proposed towers so all could see and hear what is being proposed, and the reliability could be quantified. I think there are too many questions unanswered and we are rushing into this project blind and much to quickly. I would think the Corp would want predefined guidelines for as it stands now without them; if this project is built and it fails, the fault would fall 100% on the Corp, and I wouldn't want to be the one who put my name to it!

The following are the reasons I am against the Cape Wind project specifically. I live in South Yarmouth and my home is located on the water five miles from the proposed site, and this project will directly impact me visually, noise wise, and monetarily for I will no longer have an unobstructed view of Nantucket Sound, and my property value will surly decline.

- 1. <u>Visual pollution</u> These towers are "not pretty" and can be seen for 27 miles. This location is 5 miles away. Other countries who have wind farms build a minimum of 12 miles and in water 130' deep. We should adopt the same standards. This is a problem for **we have no defined standards**.
- 2. <u>Noise Pollution</u> With the prevailing wind from the SW during the summer I know the noise of the blades will be heard. I can hear a bell bouy about the same distance and the wind farm blades make more noise. Have you ever personally been up close to the wind turbines out west? They are very loud.
- 3. Oil Spill Risk I work for an oil company for 29 years and was a member of the US Coast Guard. I know the damage 40,000 gallons of transformer oil can cause in the ocean.
- 4. <u>Free Land</u> We give free land to Cape Wind others will want the same treatment to build other commercial projects. Maybe a fish processing plant or a floating Hotel and Marina. **We must define how are waters are to be developed, and where**.
- 5. Government Subsidies Why should the tax payers subsidize Cape Wind some \$241 million? Once the subsidies start they are hard to stop for fear the project will go bankrupt. If it does we are left with a rusty non functioning wind farm to look at. Why is this so hard to understand?
- 6. <u>Poor Track Record</u> The few offshore wind farms in the world have a very poor track record. Why should this one be different. If it fails who will pay to remove it? Again, so many unanswered questions.

I want to make it know that I, and most individuals against the Cape Wind project **are not** against alternative energy sources such as wind energy. At the meetings I attended those that spoke **for** the project was pro wind energy not particularly pro Cape Wind. The debate here is, should Cape Wind be allowed to construct a wind farm in Nantucket sound, yet the meetings took a tone of those for or against wind energy.

In summary I am requesting that the Army Corp put this project on hold until a comprehensive plan is developed dealing with off shore wind farms. Under separate correspondence I have sent a copy of this letter to Senators, State officials, and the President of the United States.

Yours truly,

Robert Bloch

183 South Shore Dr. Unit G South Yarmouth, MA. 02664 Colonel Thomas Koning U.S. Army Corps of Engineers 696 Virginia Road Concord. MA 01742 - 2751 3532

February 11, 2005

Dear Colonel Koning,

I have the privilege to write as a descendant of another member of the U.S. Army Corps of Engineers, General George Gordon Meade.

I am a long time resident of Massachusetts, and have lived and worked on Cape Cod for 45 years. I am versed in areas of marine and avian issues and write with concern about the siting and scale of the proposed Cape Wind Project.

In addition to the very real issues pertaining to private exploitation of public lands, Nantucket Sound is particularly rich in biological diversity.

I have attended two public hearings and compliment the USACE for the way they were conducted.

Certainly there is a need for alternative means of energy. However, the choice of Horseshoe Shoal is opportunistic, and the Draft provides limited and flawed study regarding safeguards to the environment.

Enclosed is a specific example from Appendix 5.7 A. demonstrating what I believe to be a major flaw in the draft environmental impact statement. Judging from comments from professionals in many fields, it is one among many.

On these two issues alone, the U.S.Army Corps must deny the application to build 130 turbines on Horseshoe Shoal. I fully support the positions of Save Our Sound, Earth Island, Cape Cod Commission, Center for Coastal Studies, our Governor, Attorney General, Director of Environmental Affairs as well as our Senators, State and Federal Representatives.

Sincerely,

Louise Russell 24 Nameless Lane

Chatham, MA 02633

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Louise Russell 24 Nameless Lane Chatham, MA 02633



Comment on the Draft Environmental Impact Statement/Draft Environmental Impact Report for Cape Wind Energy Project

My comments are directed to the Preliminary Avian Risk Assessment section of the Draft; Appendix 5.7-A Volume 2

This section is extensive and commendable for the scope and attention given to the subject. However the conclusion that, "Overall, likelihood of significant risk to birds......is likely to be low" cannot be supported by data either supplied or omitted from the Draft. Far more information on species, populations and use of Horseshoe Shoal by wintering seaducks, migrating birds and terns is needed in order to adequately assess the risk to birds. "Gaps in information" and "recommendation for further study" are cited repeatedly throughout this section of the Draft.

The conclusion that "risk to birds will be low "is based upon incomplete knowledge and inadequate research. If " significant risk" is being applied to large numbers of birds, whose loss does not affect the survival of the species as a whole, it is unacceptable as a premise.

For example, it is known that 85% of the Western Atlantic population of the Long-tailed or Old squaw duck winters for half the year in Nantucket Sound. Some 250,000 of these deep-diving seaducks traditionally roost on the waters of Horseshoe Shoal AT NIGHT. This population has been site specific at this location at night for thousands of years. The birds are absent during the day as they leave before dawn and fly to feeding grounds south of Nantucket Island. They return after dusk.

The aerial and boat surveys conducted at this site were made DURING THE DAY, leading to the conclusion that avian risk would be low because few birds utilized the site. This is one example of incomplete research leading to a conclusion from which major facts are missing.

from scies 35 duck and 3

Population estimates of birds which might utilize the site were taken from land and nearshore counts. These numbers do not reflect offshore species and site-specific information. There were no mid-winter studies of seaduck populations at the site. The Draft admits, "Gaps in knowledge for terns and seaducks" and recommends further studies during the season when these species may be present.

Aerial surveys and boat transects were conducted in GOOD WEATHER. The greatest mortality to birds in the presence of obstacles and lights occurs in fog and storm conditions. Fast-flying seaducks are less manueverable in high winds and night-time migrants such as songbirds and shorebirds become disoriented and attracted to lights in fog and bad weather. Studies using other sites as examples of low bird mortality do not reflect the species and site-specificity required for accurate information about avian risk on Horseshoe Shoal. Comparisons with other sites are inappropriate.

Unanswered questions remain concerning habitat loss due to disturbance and displacement issues, as well as unknowns regarding height of flight or avoidance of the turbine matrix. Factors regarding risk assessment for the Long-tailed duck (Clangula hyemalis) ,other wintering seaducks and terns are all largely unknown. Bird mortality is species, site and behavior - specific for each geogrphic location. Generalities are not useful in this context.

Numerous studies included in the Draft cite gaps in information and recommend further research. "Careful siting is paramount to minimizing avian problems and turbines of this size and output have rarely been deployed commercially."

Siting of the world's largest wind energy project in an area which is uniquely rich in biological resources and perhaps critical to the survival of many species should not be done in haste. The research and studies cited in Appendix 5.7-A are woefully inadequate. Therefore all parties in the approval process should question conclusions in this section of the Draft and require further recommended and appropriate research before approval is given.

John A. Anderson, Jr. 26 Chine Way Osterville, MA 02655



February 10, 2005

Colonel Thomas Koning U.S. Army Corps of Engineers 696 Virginia Road Concord, MA 01742

Dear Sir.

Aside from the emotional or aesthetic issues associated with the proposed wind farm propsed for location in Nantucket Sound, I am very concerned that we, collectively, are putting the cart before the horse. I fear we are in process of going forward without having in place all necessary considerations for making a good decision, let alone a correct decision.

We are considering a momentous project without benefit of a broad consideration of what our nation should establish as right and proper utilization of waters bordering our coastlines. Hence, I believe our Congress should establish the right and proper uses of all off shore waters (up to international limits already established) before piece meal uses are promulgated to be put in place only to be addressed too late in time and "wish we hadn't."

I understand the Corps is working with what authority already exists. I fail to see, however, that that authority comprehensively includes Federal waters beyond state coastline jurisdictions. Thus, the Corps is, in effect, on the virge of breaking new ground and falls into the category of some time in the future will realize that all considerations for such use were not, in fact, part of the approval process. It calls into play whether or not the proper body had the authority in the first place, let alone the necessary criteria to make a sound decision. The instances of suffering the consequences of "grandfathering" prior diasterous decisions are legion.

Some things in particular are still in the air as far as I am concerned. For example, I have not seen nor heard a full discussion of air and boat safety. The same goes for impact on natural wildlife. While the economic study which found the project unsound financially without federal subsidy has been pooh poohed, the fact is that full and continuous demand for electric power can only be met with full on line capacity from fossil or nuclear power plants. This fact alone calls into question the much touted benefits to society of wind power in general and this project in particular

Having said all that, I would hope the Corps would withhold any "approval" and/or permitting for this project until the broad serious considerations are fully explored and

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legislated by the Congress of the United States and the necessary authorities established for all future guidance in offshore waters management.

Şincerely,

Jøhn A. Anderson, Jr.

copy to: The Honorable Senator Edward Kennedy

The Honorable Senator John Kerry

The Honorable Cngressman William Delahunt

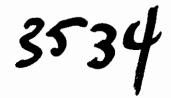
Editor, Cape Cod Times



Marieluise Hutchinson

1012 West Yarmouth Road ` Yarmouth Lort, Hassachusetts 02675

February 14, 2005



Col. Thomas Koning U.S. Army Corps of Engineers 696 Virginia Rd. Concrod, MA 01742

Re: Cape Wind Draft Env. Impact Statement

Dear Col. Koning:

I feel that the Cape Wind Draft Environmental

Impact Statement is inadequate regarding boating,

wildlife, pollution and economic impacts.

Thank you for considering this letter.

Sincerely,

Marieluise Hutchinson

PEC 16 2005

NOISPAN Y NOTHER

Elizabeth Butz 122 Upper Saddle River Rd. Montvale, NJ 07645

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Attn ColThomas Konig US any Cofe

Iam voicing my opinon that

the proposed what form in

Nontucket Sound enaced be

devostating in its eminamental

inspect - the Cape is an important

stop for thousands of migrating

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eighties - I have seen wind

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Elect Consider this - we meet

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William C. Ladd, Associates Inc.,

303 RED TOP ROAD, BREWSTER, MA., 02631.

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ESTABLISHED 1976.

PH. # 508-385-7003. FAX. # 508-385-3778. CELL # 508-259-9193. E-MAIL: ladds@gis.net

02/13/2005

Col. Thomas Koning, U.S.Army Corps of Engineers, 696 Virginia Rd, Concord, MA., 01742.

Dear Sir,

With all due respect, this project is beneath the dignity of the Corps.

Not only is it a disrespect of everything that stands for the integrity of Cape Codders, it is also a travesty of the environmental spirit envisioned by John F. Kennedy when he created the National Seashore in the lower Cape.

This project is a private entrepreneurial undertaking disguised as an environmental watershed development. It touts safety, alternative energy, and savings for the consumer. In reality it will do this area little good. Witness the outfall pipe in Boston...levels of contaminants in the northern Dennis beachs reached a record high incidence this past summer.

Let us not get carried away by powerful financial interests and federal intervention. Support Cape Cod and the Islands' way of life and history!!

Respectfully submitted,

William C. Ladd and family.

Victai C. Ull

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TELOGYISION

ELIZABETH MURRAY 16 Monomoy Road, Nantucket, MA 0255 Jel 92 2005 al Themas Louis 696 Vergenia Rd 35 Consold, Ma-01742 Saw-whet Out Dear Col Joning: I am writing to Frolest te hind Farm Slauned Los Paulucket Sound. Not only will it be wasightly, I feel and other wiedlife, am also concerned about ir safety for our Small monuted flanes sincekely, Elizabeth & Munay

ATT: Col. Thomas Koning

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Dear Col. Koning

Impact STATEMENT IS inndegrate

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Navigation Safety, impact sto birds

And other wildlife; pollution threats

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Visual pollution and associated economic.

And Tour ism impact, and the Analysis

Of alternative sites.

Dan melmaria Gallagher

Leave our Sound Alone

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W. Simsbury

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NOISIN'ILAY

GEARD IS

JS 39 1 Lighthouse Lane 1 Lyannis, Ma 02601 4844

Colonel Thomas Koning

V. S. army lorps of Engineers 696 Virginia Rd

Concord, ma 01742-2751

I know you are trying to hely with the electrical shortage we have but I don't the expression put it is appropriate for doing it.

Nantucket Bound is important for boats which go to Nantucket to supply island with food etc. and also for festing, recreation ele. It is also important for nature envoironment.

Why do you have to spoil

all this sound for the improvement of our electricity I would like to see you find another place especially on land for your project. I live here and see the water and enjoy the habitest and all. It is a relaping place to live, Why destroy it for us and summer folks who come here for relaxation & recreation.

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Sincerely,

Patricia W. Geak

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DONALD DILLON 30 COCKACHOISETT LANE OSTERVILLE, MA.02655

Col.Thomas Koning
U.S. Army Corps of Engineers
696 Virginia Road, Concord, MA 01742

13 Feb. 2005

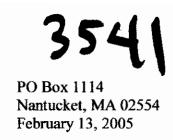
Dear Col. Koning,

I believe the Cape Wind Draft Environmental Impact statement is inadequate in the areas of air and boat navigation, oil pollution threats, analysis of alternative sites and economic and tourism impacts. I strongly urge that more time and analysis be given this project before the Impact Statement is finalized.

Sincerely,

#FOEIVED

Part C 275 Order B VISION



Colonel Thomas Koning U.S. Army Corps of Engineers 696 Virginia Road Concord, MA 01742

Dear Colonel Koning:

For sixty years I've been on Nantucket. I've seen so many changes to the island area. But none is as disturbing as the proposed windmill towers.

The Cape Wind Draft Environmental Impact Statement is inadequate. Please give further thought to air and boat navigation safety, the pollution threat from the oil on the transformer substation and the visual pollution that would alter forever the national treasure of Nantucket Sound.

Please continue your review of the proposed project with an eye toward the harm it will do to this area of natural beauty.

Very truly yours,

Donald C. Harris

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E TALLEY COVISION

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Feb 14,2005

Colonel Thomas Koning U.S. Army Corps Of Engineers 696 Virginia Road Concord, Ma 01742

Colonel Koning,

I write this letter to you as a waterfront property owner of Martha's Vineyard and a concerned citizen of the environment. I am FOR the construction of windmills in and around Nantucket Sound and any other place on this earth that will decrease our dependency of conventional energy methods, which have for years been polluting and destroying our precious environment. I see the opponents of this project as spoiled brats that do not want to spoil their expensive views of Nantucket Sound. I am sure that each individual opposed to this project would be openly for the project if it was not being built in sight of their properties. We need to make a statement that each one of us is willing to sacrifice in order to insure that we leave a safe and healthy earth to our future generations. Projects such as this one can not only be constructed in other peoples back yards!

PLEASE continue to move this very practical project forward.

Frank Cle

hak You

HOLIVED

120 / 9 2005

A CONTRACTOR

Roland Helntosl
276 Stage Harbor Rd
Chatham MA 02633
Feb. 144 2005

Colonel Thomas Koning
US Arm, Corps Engineers
696 Viriginia Road
Concord MA 01742

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The Cape Wind Druft Environment (Statement is inadequate. I am very concerned over migrating birds. This project will be a Mess.

Du addition them will be visual pollution.

It is similar to drelling for oil

Very truly

"-CEIVED

Roland M'Inlul

February 4, 2005

Robonel Phomas Honing 4.5. Army Lorpe of Engineers 696 Virginia Rd. Loncord, MA 01742

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Dear Colonel:

I wish to voice my opinion regarding the Cope Hand Juposal. I feel that the lope Wind Draft Enveronmental Impact Statement is inadequate in many areas including an + toat navigation safety, impacts to Turds and other weldlife, spollution threate from oil on the transformer substation, ordical pollection and associated scononic and tourism empacte and the analyses of alternative seter.

Sincewely.

Subara Hatley

39 Town Hill Ratte

Esterville, MH

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